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The Cloisters

By Anne Lee

Illustrations by courtesy of the Metropolitan Museum of Art

THE spirit of the Middle Ages is alive in the beautiful capital and column carvings which form a significant feature of The Cloisters collection of Romanesque and Gothic sculpture.

Were William Morris to return to life to-day; were he to return to life in New York instead of in England, the nineteenth-century champion of mediævalism would be inspired to begin anew his fight to revive the spirit of the Middle Ages.

The Cloisters, the recently opened first "branch" of the Metropolitan Museum of Art, the gift of John D. Rockefeller, Jr., would provide the inspiration. The impelling beauty of the mediæval sculptures collected by George Grey Barnard and so effectively assembled by the American sculptor in The Cloisters, the large, red brick building on the crest of Washington Heights, affords most convincing proof of William Morris's contention that the workers of the Middle Ages expressed their joy in creative effort by producing living works of art.

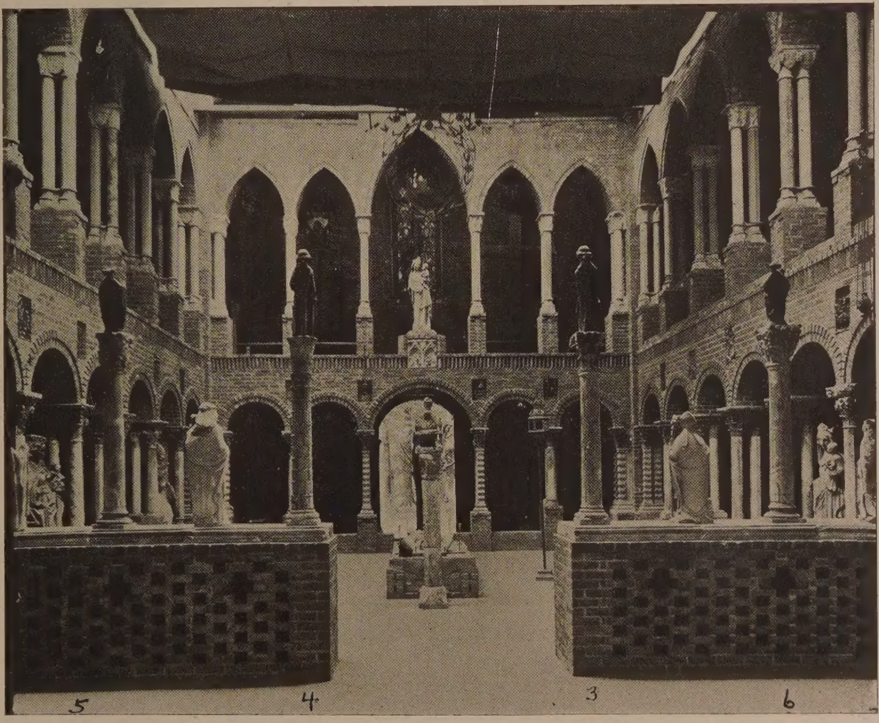
This architect, artist, and poet believed the only worthwhile arts were those produced by man in joy, and, in urging people to give up the machinery which killed their individuality of effort, he hoped to re-establish joy in the art of England. The futility of his mission is well known, but no one can visit The Cloisters and leave it without a sympathetic thought for William Morris, so definitely is he associated with the mediævalism one finds there.

The joy of self-expression is most apparent in the large number of exquisitely carved columns and capitals which form one of the most significant features of the collection. And, because each carving represents the particular sculptor who created it, giving expression to his ideas, his joy, and his mood, we find an infinite variety in the beauty and treatment of these Romanesque and Gothic sculptures.

For the most part, the columns and capitals in the collection belonged to the mediæval cloisters of which parts of four—Saint-Guilhem-le-Désert, the Carmelite monastery at Trie, Saint-Gaudens and Saint Michael at Cuxa—are included in the museum named for them. It is this phase of the collection which this article purposes to dwell upon.

The exceptionally interesting series of late Romanesque sculptures, which forms a part of the arcade supporting the balcony, came from the celebrated Benedictine monastery of Saint-Guilhem-le-Désert, founded in 804 in Gellone, south eastern France, by Guillaume au Court Nez, Duke of Aquitaine, one of Charlemagne's paladins. These architectural fragments, believed to date from the last third of the twelfth century, are considered by the museum authorities "notable examples of the finest French architectural sculpture in the fully developed Romanesque style, some of which are perhaps more properly described as Gothic."

Considering the sculptures themselves, we find that foliage motives predominate in the Saint-Guilhem group. Although a number of the columns are carved, the majority depend for decoration upon their elaborately carved capitals and abaci. Acanthus leaf motives feature many of the capitals. Some of the Corinthian type are sheathed with curling acanthus leaves that show various conventionalized treatments. Perhaps the most interesting use of this motive is that seen in Figure 1, page 218. The bold spiral sweep of the leaves



Photograph A. Western end of nave looking toward main entrance. Below is the cloister from Saint Guilhem-le-Désert and, above it, that from the Carmelite monastery at Trie. (Note Figures 3, 4, 5, 6 referred to in article.)

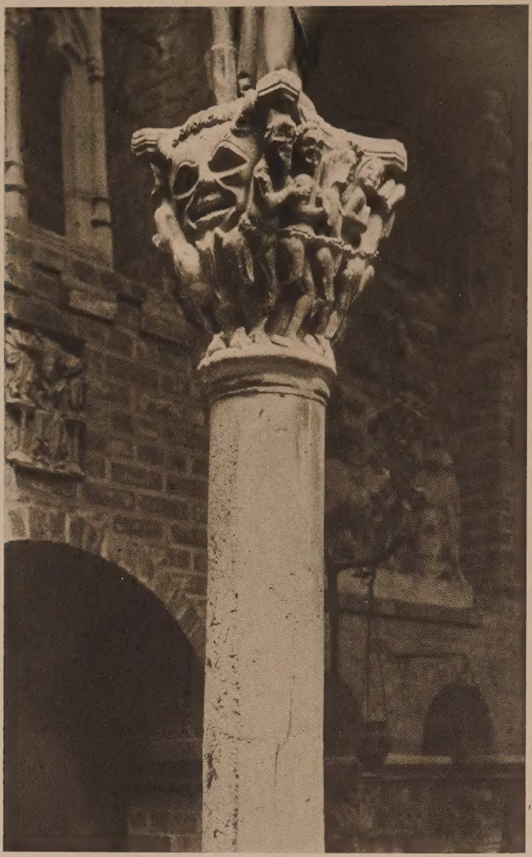


Fig. 6. Early Gothic French "Hell" capital.

apes Nature's own handiwork in creating beautiful twists and curves. Deep undercutting gives a brilliant play of light and shade to the carving. Very similar (likely the work of the same sculptor ?) in treatment is the carving on the exquisite pilaster shown in Figure 2 (Photo B), one of the finest examples of Romanesque decorative sculpture in the collection. In its capital the sculptor has combined acanthus spirals with flat, conventional acanthus leaves with curling tips, adding, for good measure, a human head on either side of the centre rosette.

Broad acanthus leaves in low, flat relief decorate the carved column (Figure 3) standing at the end of the screen which divides the nave (at the right of Photo A showing the western end of the nave). The surmounting capital is ornamented with crisply conventionalized curling leaves. Opposite is another notable column (Figure 4), the design of which is believed to represent the trunk of a palm-tree, executed in a conventional style which is carried on through the capital. A third column of interest (Figure 5, shown at the left of Photo A) is carved with an intricate chevron design. Particularly noteworthy is its capital decorated with four large, flat acanthus leaves which curl slightly at the tips to support the Corinthian scroll terminals.

On the screen we also find the early Gothic "Hell" capital (Figure 6), a masterpiece of mediæval sculpture, dating from the beginning of the thirteenth century and representing sinners, in chains, being led past the terrifying face of Satan into the mouth of Hell.

Several interesting pilasters carved with parallel waving lines and surmounted by capitals showing various foliage motives are also seen in the photograph of the western end of the nave. However, another pilaster of this type (Figure 7, at the left of stairway to gallery in Photo B) shows a queer combination of foliage and human and animal heads against a conventional background. A grotesque animal (probably tiger) figure covers either side of the capital, its head jutting out to form a part of the front design.

Other capitals in the Saint-Guilhem group show naturalistic carvings. One is patterned with a delicate lacework of vine leaves and tendrils. Another (Figure 8), closely covered with the flat, heart-shaped leaves of the black bryony-vine, shares an abacus, richly carved with five-pointed ivy and cornered with realistic human heads, with a capital in which we observe a different and most fascinating treatment of the popular acanthus-leaf motive. It reverses the usual order by showing the four large, flattened leaves, tips down, carved up toward the top of the capital. Near the stems, where each leaf is joined by two smaller ones, the four clusters are gently bent down, as it were, to form four beautiful swells which extend out from the main body at the top of the capital, lending a new note to the carver's art.

No less variated are the beautiful abaci carvings which introduce fruits, birds, human and animal heads amidst a profusion of vines and other foliage ornamentation. Across one winds a ribbon in angular folds, simulating a Greek fret design.

Seventeen of the twenty double white-marble capitals of the late fifteenth century, which are the chief feature of the triforium cloister, came originally from that of the Carmelite monastery at Trie in southern France. The other three are believed to have come from the monastery of Saint-Sever, near by at Rustan. Numerous coats of arms may be seen in the Trie capitals shown in Photo A. This practice

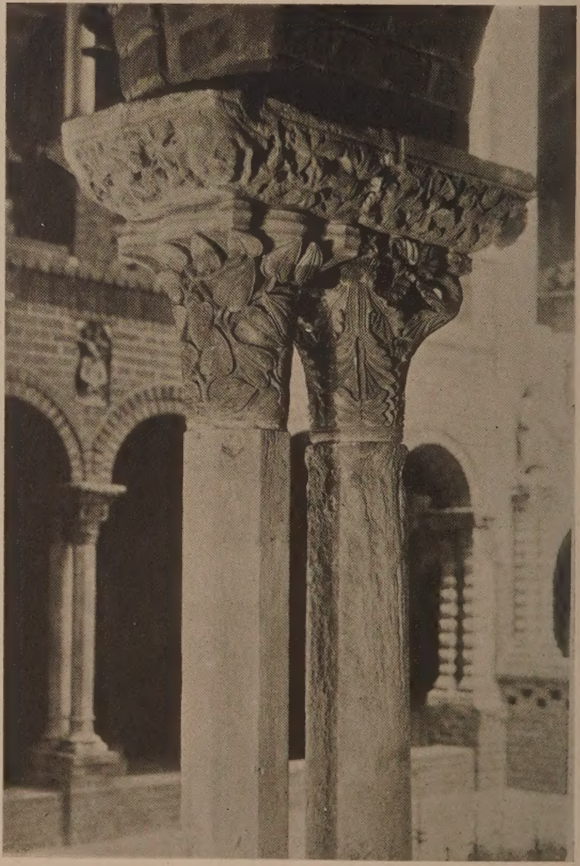
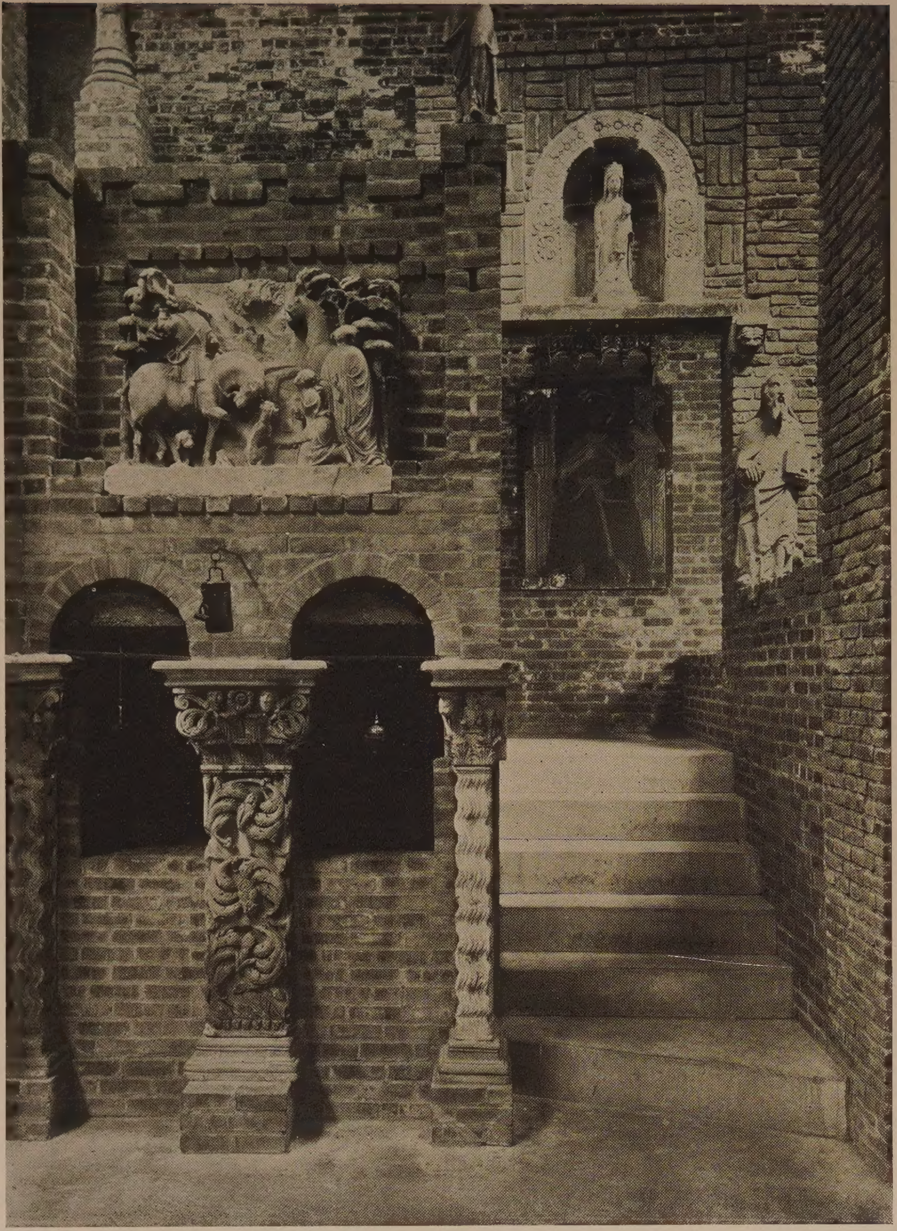


Fig. 8. Capitals from Saint Guilhem-le-Désert.



Photograph B. Entrance to gallery, showing the interesting carved pilasters which support the first landing.

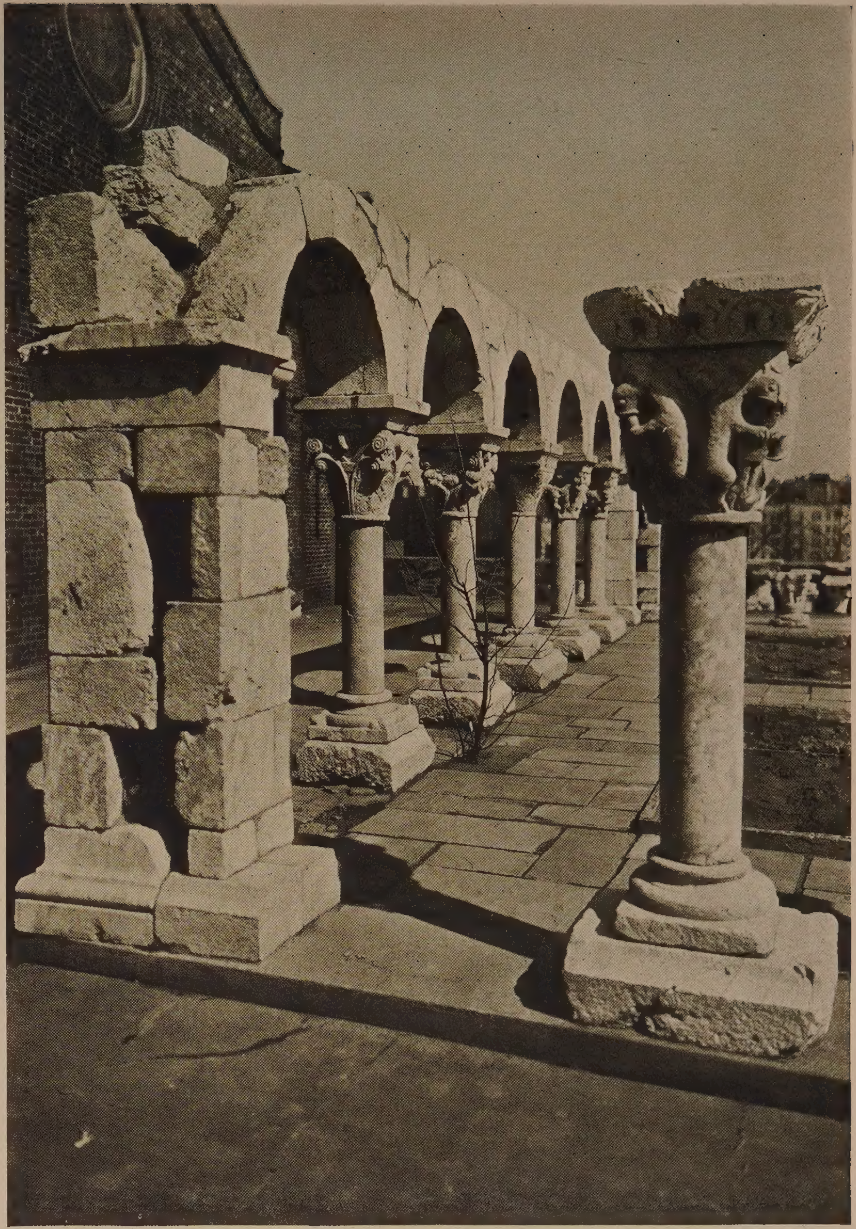


Fig. 11. Part of the Cuxa cloister.

Only one of the short sides of the arcade has been set up, but eventually the other three sides will be completed with the forty-three capitals, numerous abaci, columns, bases, and other architectural fragments from the celebrated cloister which are included in the collection. Additional parts necessary for the reconstruction are now being quarried at Prades from the same quarries used by the Romanesque builders. At a future date the Metropolitan Museum of Art hopes to erect a wall, to enclose the four galleries surrounding the garth, and add a tiled roof in order that the cloister may convey an accurate impression of the kind found in mediæval monasteries.

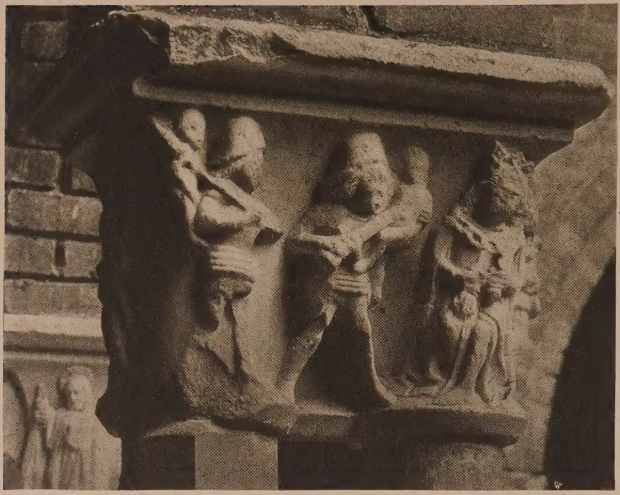


Fig. 9. Capital from Trie. "Massacre of the Innocents."

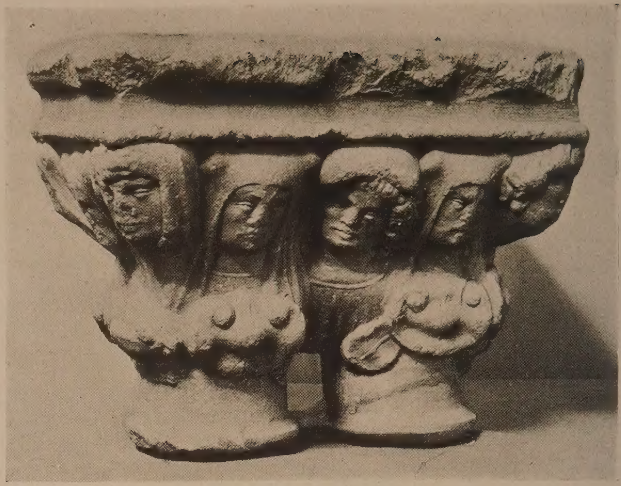


Fig. 10. Capital from Saint-Gaudens.

of perpetuating the names of important local families who had assisted in the building of the abbey points to the secularization of art in the late Gothic period.

Grotesque carvings decorate some of these capitals, and many of the subjects illustrate traditional scenes from the Bible and legends of the saints, such as the Creation of Adam and Eve; the Sacrifice of Isaac; the Annunciation; the Massacre of the Innocents (Figure 9); Christ's Temptation; the Story of Lazarus; Saint Martin Dividing His Cloak; the Stoning of Saint Stephen; and Saint George Delivering the Princess from the Dragon.

Against the walls of the balcony are several finely carved double capitals of white marble, excellent examples of French fourteenth-century decorative sculpture, which are part of a series from the cloister of a destroyed monastery at or near Saint-Gaudens (Haute-Garonne) in southern France. One of these (Figure 10) shows the use of human heads, realistically carved, to support its abacus.

The cloister of the famous monastery of Saint Michael at Cuxa, in the Pyrenees, provided the Romanesque stonework with which the fourth cloister was erected outdoors, where the beautiful pink, unpolished marble, streaked with grayish white, blends happily with the greens of the planting between the flagged paths.

Architecturally and sculpturally, the Cuxa cloisters, presumably executed between 1150 and 1175, show characteristic Catalan work of the Romanesque period, for Cuxa, now French, was originally Catalan. The sculptor of this period had an unfailing instinct for ornament, but he lacked skill in realistic representations. There is a certainty of hand and vision in the clearly defined, simple planes, rich in light and shade, which distinguishes the best Romanesque sculptures.

One is aware of a vigorous quality in the carving of the Cuxa capitals, which combine such motives as human figures and heads, lions, apes, birds (usually monstrous in form), acanthus and other conventionalized foliage, palm-trees, vines, bunches of grapes, rosettes, palmettes, and half-palmettes. Successful combinations of motives are seen in such magnificently vital capitals as those illustrated in Figures 11, 12, 13, and 14. The ruins of Saint Michael at Cuxa as they appeared in 1834 are seen in the latter, a reproduction of an illustration in Baron Taylor's "Voyages pittoresques" published in Paris in 1835.

Although the majority of capitals in the collection are parts of the four cloisters referred to, there are many odd capitals of equal interest scattered about the unique museum. Space does not permit further details, but the sculptures dealt with in this article will suffice to illustrate their character and scope.

The visitor who plans to take particular note of this phase of The Cloisters collection will find the fascination of these capitals circumscribed only by the number available. In the vital, living quality of these mediæval sculptures he will recognize the workers' joy in self-expression, for the revival of which William Morris strove desperately hard during the closing years of the nineteenth century when machinery began in earnest to replace the craftsman.

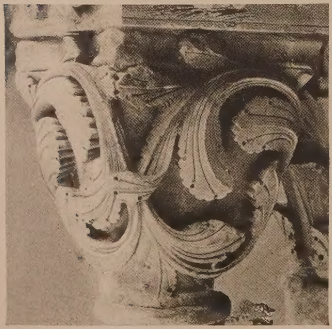


Fig. 1. Romanesque capital from Saint Guilhem-le-Désert, showing interesting spiral treatment of acanthus leaf motif.

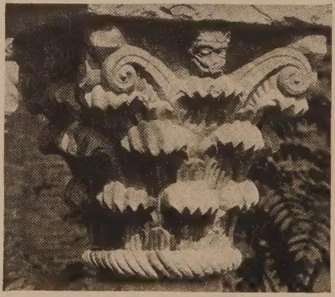


Fig. 12. Capital from Cuxa.

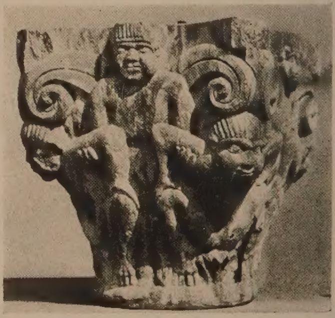
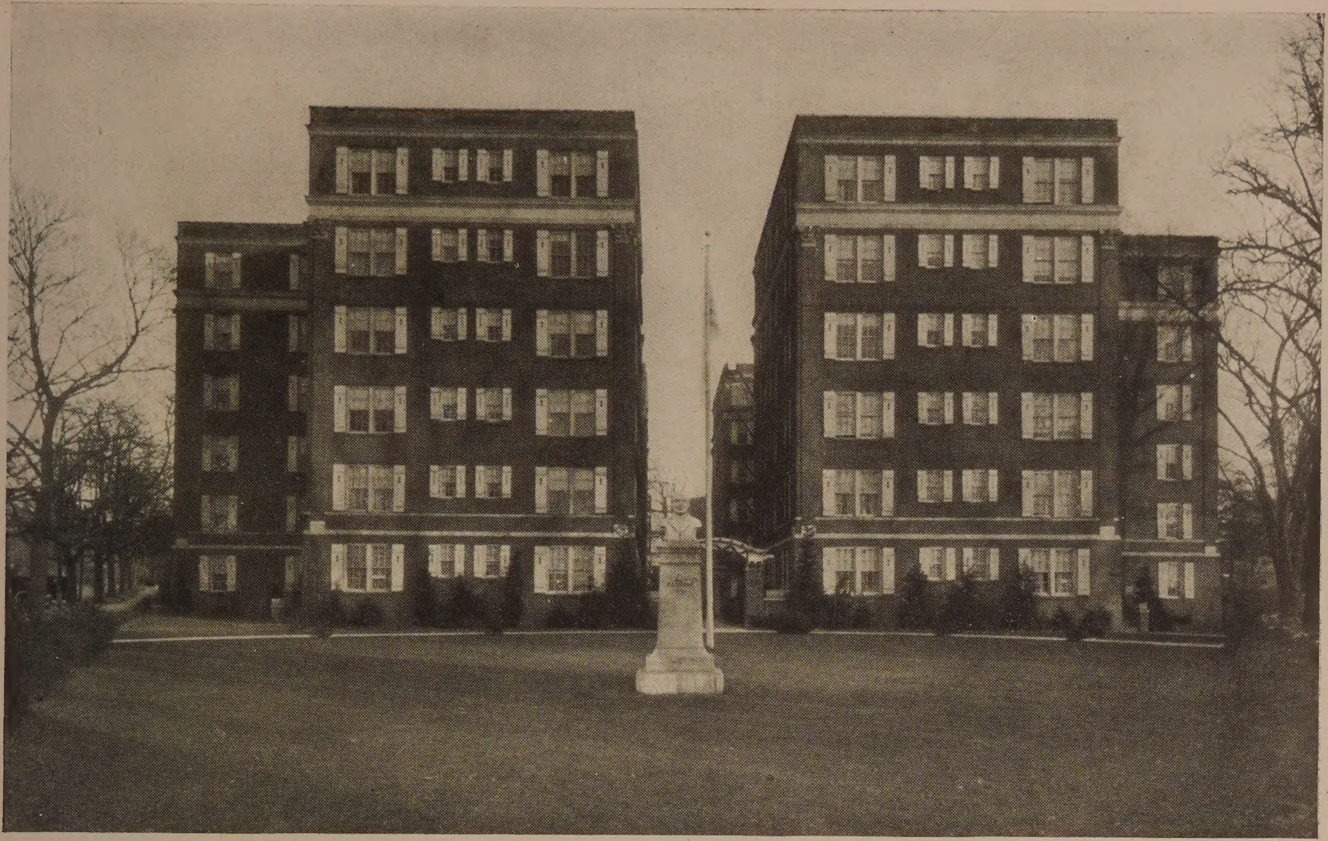
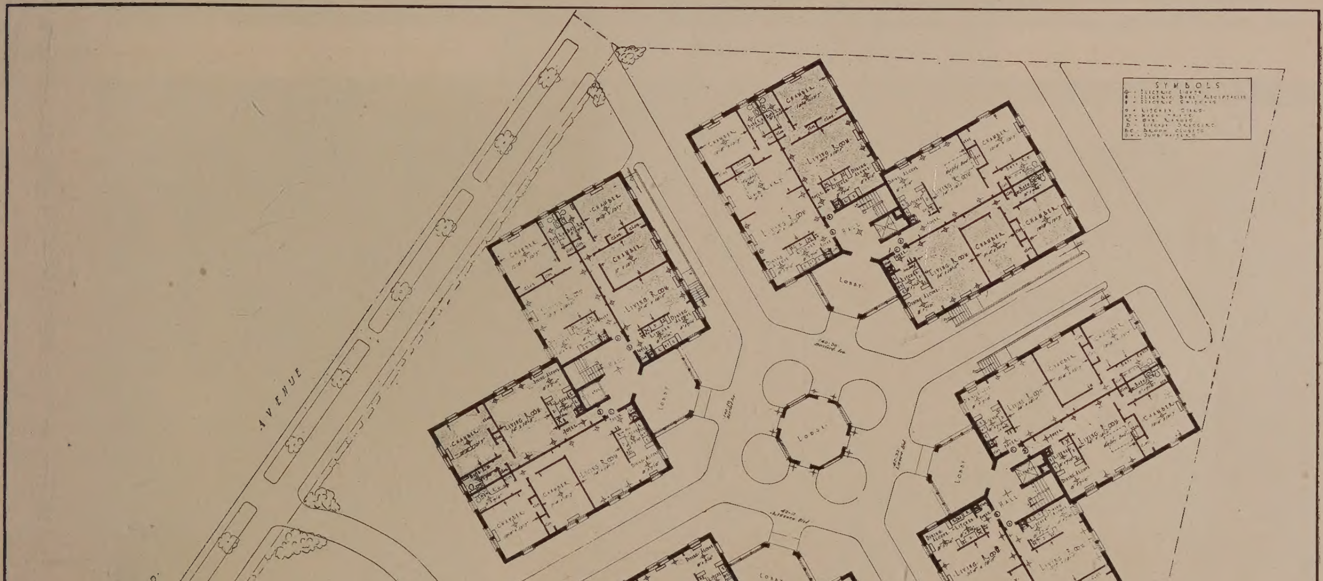
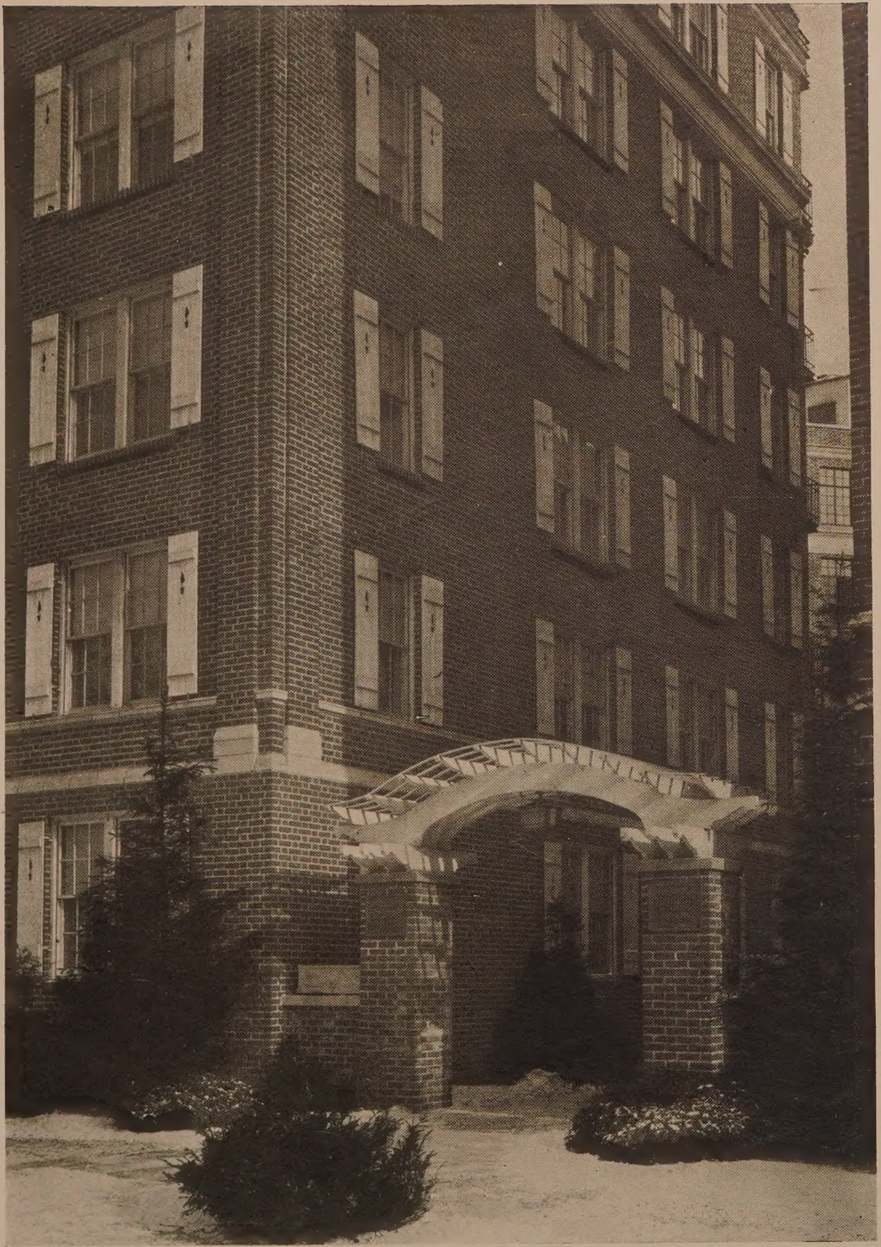


Fig. 13. Capital from Cuxa.

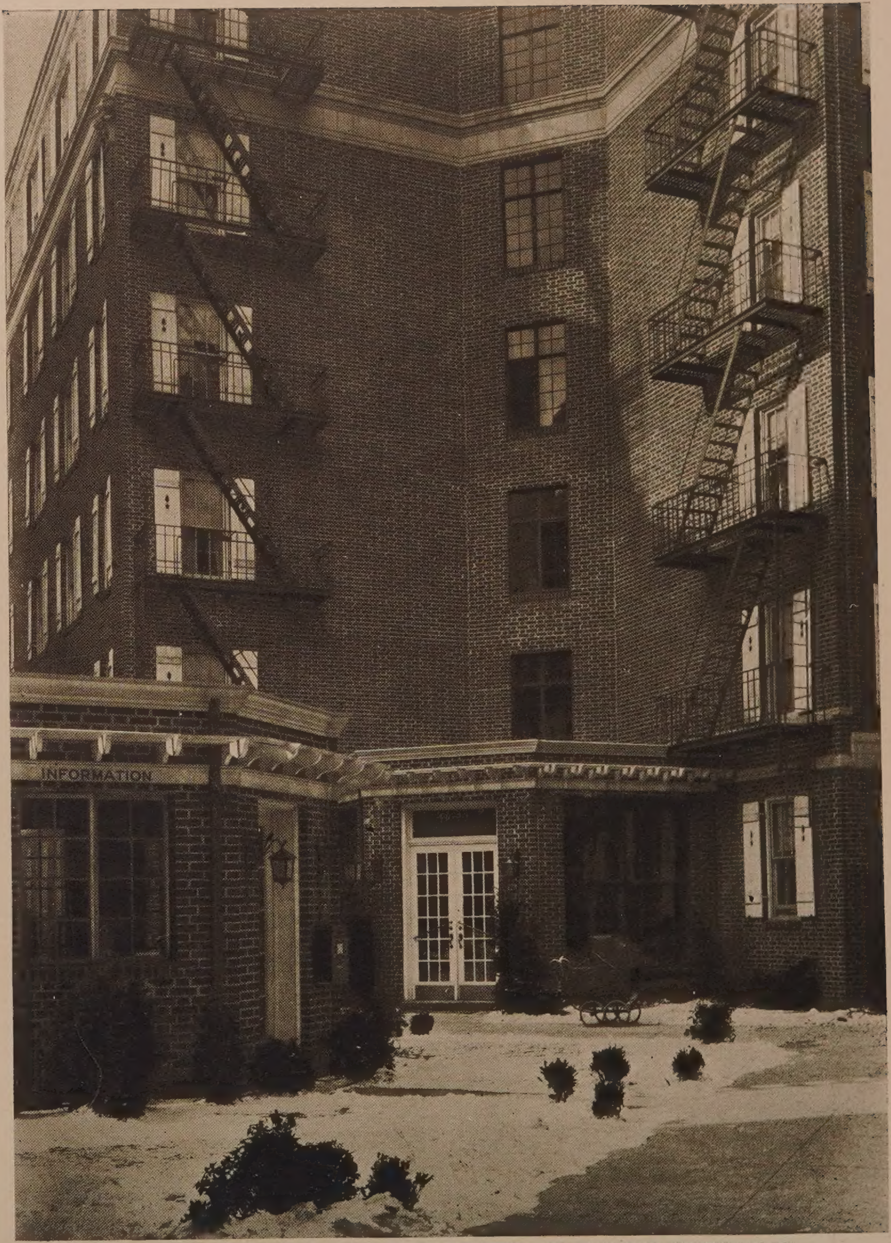




PRESIDENT HARDING APARTMENTS, FLUSHING, N. Y.
Martin M. Wohl, Harry Wohl, R. A., Architects; Alex. MacLean, R. A., Associate Architect.



ENTRANCE TO COURT.



THE COURT, SHOWING INFORMATION BOOTH AND HOUSE ENTRANCE.

PRESIDENT HARDING APARTMENTS, FLUSHING, N. Y.

Martin M. Wohl, Harry Wohl, R. A., Architects; Alex. MacLean, R. A., Associate Architect.

Types and Choice of Construction

By Theodore Crane

Associate Professor of Building Construction, Yale University

ARCHITECTURE, probably more than any other of the fine arts, requires an appreciation of technology for its proper expression. In painting and sculpture, the call upon science is limited to a narrow field. The execution of the artist's dream is largely, if not completely, within the power of his own hands. Such is not the case in architecture. Here the artist's conception must be executed by hands other than his own, by groups of individuals, often with little appreciation and less sympathy for his own ideas. However, an architect is ultimately judged by his completed structures, which can be successfully erected only through a thorough co-ordination of all the various crafts represented by the building industry. This ability to properly satisfy the structural and mechanical considerations without impairing the artistic value of the design, requires a broad, not necessarily detailed, but basic knowledge of structural requirements and the work of the different trades.

It is not usually necessary for the architect to design the structural details of large buildings without the co-operation, or at least the advice, of an engineer. His problem is to choose the most suitable type of construction. This is often more difficult than making the structural design, as it involves both engineering and economic considerations. For example, on any particular project, the character of the building will largely determine whether bearing-walls or a skeleton-type of construction is to be used, but the choice between a structural-steel frame and a reinforced-concrete frame may depend upon relative cost. As such a decision should be made at the time when the preliminary studies are drawn, it devolves upon the architect to compare the relative advantages and disadvantages of such alternate schemes.

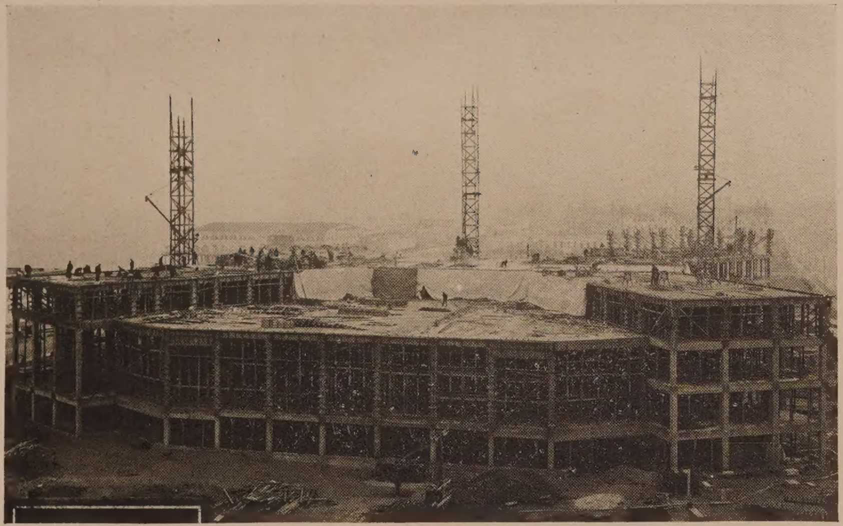
As an architect draws upon his accumulated knowledge of architectural design to furnish some suitable detail, or treatment, needed in his composition, so the first step toward a proper structural design is to obtain a basic knowledge of the various available materials, or systems, from which to choose the one most suitable for the particular problem in hand. In the case of floor-construction, for instance, there are over fifty different types which have been used, in so-called fireproof buildings, during the last decade. Of this number, at least twenty are encountered, more or less widely, at the present time. So far as the purely architectural considerations are concerned, any one of a dozen different types might give equal satisfaction. For any particular set of conditions, however, there is probably one that will be the most economical. In order to make a correct choice, the architect should be thoroughly familiar with the individual characteristics of each type — their advantages and their limitations.

Army Base, Brooklyn, N. Y. Cass Gilbert, Architect. Turner Construction Co., Builders. For this building a reinforced-concrete frame was not only the more appropriate, but also gave an excellent opportunity to express the character of the material.

As the widely different kinds of floor-construction have originally been devised to meet particular conditions of span and load, it is possible to eliminate certain designs as soon as the location, type of occupancy, and architectural plan of a building are determined. Other possibilities will often be eliminated by the requirements of local building ordinances, or the relative costs of different classes of labor and kinds of material. These latter, as affecting the cost of a floor or wall construction, do not always involve a detailed estimate for their just evaluation. In fact, even a hasty survey will often prove the inadvisability of using a particular design owing to the cost of transporting the necessary materials. Similarly, labor conditions sometimes determine the choice of a certain system which would not otherwise be selected.

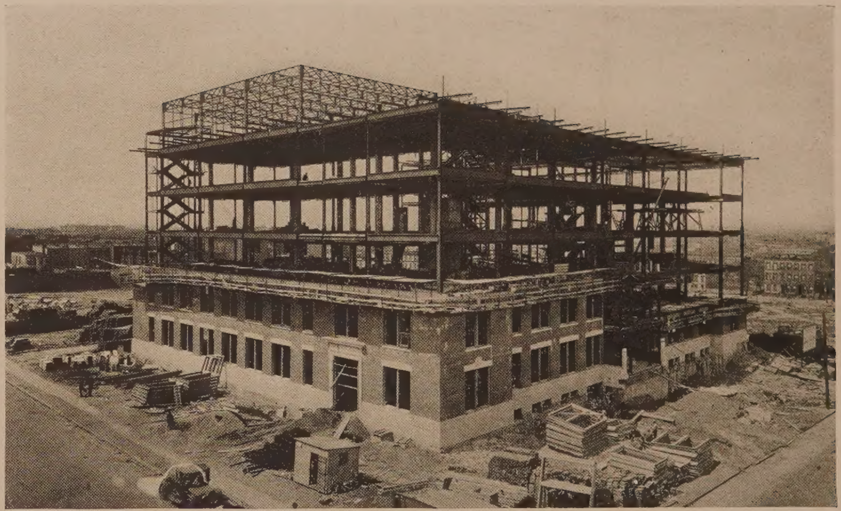
In the field of wall-construction, the problem is rather one of materials than of systems. Having decided upon the type of frame, or upon the use of bearing-walls, a choice of materials must be made to obtain the desired exterior appearance, impermeability, and structural strength. As in the case of floor-construction, it is possible to eliminate certain types as unsuitable for the location, class of occupancy, or architectural design. Again, the local building ordinances play an important part, or the standards of good practice where no code exists. Thus by a process of elimination, the various possibilities can be reduced to a few alternates and a final decision reached by an investigation of relative costs.

After the type of construction, as affecting the frame, the walls, and the floors has been determined, the next step is to ascertain the over-all dimensions of the structural elements, such as the thickness of floors, depth of beams, and



Construction view of the Berkeley-Carteret Hotel, showing the reinforced-concrete frame.

Berkeley-Carteret Hotel, Asbury Park, N. J. Warren & Wetmore, Architects. Turner Construction Co., Builders. The simple lines of the building were well adapted to the reinforced-concrete frame, the skeleton being covered with a brick veneer. For buildings of this type an estimate of cost is often necessary in order to determine the choice of frame.



Construction view of Public School No. 210, showing the structural-steel frame.

Public School No. 210, Brooklyn. Wm. H. Gompert, Architect. Turner Construction Co., Builders. Although of less height than the Berkeley-Carteret, this school building represents a class of construction for which a steel frame is often more desirable, owing chiefly to the requirements of the structural design and local conditions.

Barclay-Vesey Building, New York City. McKenzie, Voorhees & Gmelin, Architects. Marc Eidlitz & Sons, Builders. For this type of construction only a structural-steel frame should be considered.

size of columns. As this should be done in the early stages of the design, in order that proper allowances can be made for these often unseen but most essential features of the structure, the assistance or advice of an engineer is not usually available. In fact, an approximate structural design, sufficient for architectural purposes, can usually be made by any intelligent draftsman with the help of a good handbook, supplemented by the publications of the more reliable manufacturers.

As in all our mental processes we naturally work from the known toward the unknown, so in determining upon the type of construction to be employed for a particular project, we should carefully note the facts which define our problem and their bearing upon its solution. In this operation, we need not accuse ourselves of puerility even if we commence with the simplest and most apparent truths, for it is often the disregard of elementary principles that ultimately results in inappropriate or uneconomical design. The problems of building construction are so involved that it is most essential to think simply and directly, to advance step by step, and to follow through each controlling principle, in the order of its importance, to a satisfactory conclusion.

The first problem ordinarily encountered is the determination of the size and shape of the building. The location is usually known, as well as the purpose for which the structure is intended. In many cases the conditions of occupancy, or available funds, determine the ground-plan and number of stories. For commercial buildings, however, the size may depend upon purely economic considerations—the cost of producing rentable space.

In the case of city buildings, the plot ordinarily governs the shape of the ground-plan, and the succeeding stories are a development therefrom, worked out in conformity with local building ordinances, the type of occupancy, and the architectural and structural design. Before these two latter can be fully developed, it is necessary to decide the probable height of the building. Here the architectural requirements are usually sufficiently elastic to give place to the economic demands. With a known cost of land, and approximate estimates for buildings of several different heights, combined with the corresponding costs of operation, etc., an economic minimum height is quickly apparent below which the avail-

Hide and Leather Building, New York City. Designed and built by Thompson & Binger, Inc. Starrett & Van Vleck, Consulting Architects.

able floor-area, in the completed building, would be above the market value in cost, owing principally to the disproportionately high charges for land and foundations. Similarly, the requirements of the structural design will determine a maximum height above which it is not structurally practicable to go.

Between these two limits, it is not difficult to work out a height for which the cost of floor-space is a minimum. This computation calls for a careful evaluation of the various items that make up the charges under service conditions, such as the financing of the operation, the purchase of the land, the price of the completed structure, and the operating costs, including upkeep and depreciation. This minimum cost per square foot of usable floor-space may determine the height of the building, or it may be desirable to go higher, even with an increased expenditure per square foot, owing to the particular requirements of occupancy, advertising advantages, or similar reasons. If this is to be done, a fixed rental value is generally assumed, based on market conditions and their probable future trend, and the structure carried up to a point where this value is approached.

The next problem, after determining the size and shape of a building, is to choose the material for the frame. Where land values are high, as in the business districts of our larger cities, a comparatively tall structure is almost invariably to be desired. Such a building may have a structural-steel or a reinforced-concrete frame. There are no other suitable materials. The problem involving the choice between steel and concrete can be divided into two simple questions, or groups of questions: Which more easily lends itself to the desired architectural treatment? Which is the more economical, all things considered? It is often unnecessary to go any further; the answer is usually apparent from either the utter inappropriateness of one of these two types, or because of the considerable difference in cost. There are certain localities, however, where the relative economy of the two types of frames may be in doubt, and in such cases it is necessary to make two separate estimates.

So far, the procedure is obvious, but at this point the error is usually made of basing both estimates upon a single structural design, which is not likely to be suitable for both materials. A basic principle has been violated. That the structural design should, fundamentally, express the character of the materials, is generally acknowledged, but the fact is often forgotten that a just estimate of different types of structures can only be made upon designs suited to that particular type of work. An estimate for a reinforced-concrete frame should be based upon a design developed to properly express the structural characteristics of that material, and similarly in the case of structural-steel.

The writer remembers having been called upon, about sixteen years ago, to make an estimate of the cost of a building to be constructed in reinforced-concrete which had been designed to be built in brick. At that period, when reinforced-concrete was far less understood than at the present time by either the architect or engineer, such a request was not unusual. Designs were often developed to meet the conditions of location, occupancy, and architectural treatment, before any great thought was given the material to be employed. Consequently, it was not at all unusual for reinforced-concrete to be considered as an alternative for brick in the exterior walls, and if the former were cheaper, it would often be employed with practically no change in the structural treatment. Fortunately, we are now using our materials with a more just conception of their fundamental mechanics and realizing, more and more, as the years go by, that the designs suitable for brick construction are far different from those which are the logical outgrowth of reinforced-concrete.

Having determined the general dimensions and the type of structural frame, it remains to choose suitable floor and wall-constructions, which subjects will be treated in subsequent articles.

Study of Specification Requirements for Common Brick by Bureau of Standards

A STUDY of existing specifications for common brick recently completed by the Bureau of Standards, Department of Commerce, shows that there is need for greater simplification in acceptance procedure. It is also evident that there is at present a lack of standardized test methods, judging from present building-code requirements.

Study of test data obtained from a number of laboratories shows that results from certain prescribed tests for brick have a fairly definite relation to each other, thus indicating that the number of tests necessary in grading brick may possibly be reduced.

According to the present specifications of the American Society for Testing Materials there is required an absorption test, a crushing test, and a cross-bending test. These involve too much time and expense for ordinary use, although the standard has been useful for reference purposes and where large purchases have been involved. On the other hand, a transverse test can be made with simple portable equipment at the plant or on the job, and future data may prove this test sufficient.

The data were also studied for relations between water absorption of brick and weathering resistance. Freezing and thawing tests to be conclusive must be carried up to 100 alternations or more, and cannot generally be applied in acceptance tests. If, however, the general performance in such tests could be indicated from the amount of water absorbed by the brick in a given time as immersed in a specified manner, freezing tests would not often have to be made.

The bureau believes that the results of its study at the present time do not justify definite conclusions or recommendations, but it has been able to collect, summarize, and compare all available test data and place this material in convenient form for those who are interested in specification and building-code requirements.

A Million-Dollar Home Show

THE largest Home and Building Exposition ever held in the United States on one floor was the one in Indianapolis under the auspices of the Indianapolis Real Estate Board. Under one roof covering more than 63,000 square feet of space was shown a display of all that goes into the construction and complete furnishing of a home. Every individual, from the owner of the smallest cottage up to the most palatial home, found ideas and suggestions there that he could adapt to his own use. It was especially interesting for its emphasizing the value of having a competent architect in the designing of any home.

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Editorial and Other Comment

The Growth of Stylistic Freedom

IT is a commonplace of our recent architectural development to point to the new setback architecture as indicative of the trend toward complete freedom from the dominance of historic styles. In the very nature of the case it has been impossible to adhere with any consistency to forms that are governed by fixed rules. If Mr. Gilbert found Gothic elements most appropriate for the soaring heights of the Woolworth building, he yet adhered to no hard and fast traditions, but used Gothic in a way that gave it quite a new significance, and while preserving certain marked characteristics added something from his own genius to give the beautiful tower an element of modernity in keeping with the spirit of the great city it adorns and the commercial enterprise it commemorates and advertises.

All over the country the new high buildings are showing fresh impulses, original approaches to problems that the past never had to contend with. And happily the same tendency is being made manifest in some of our best suburban architecture.

In his admirable summary of the "Spirit of American Architecture" recently published, Talbot F. Hamlin has this to say on the subject:

"The day of the 'revival,' the imitation of archæological forms, is gone. History is no longer conceived as a series of fixed patterns, a magic-lantern show rather than a moving-picture, and any sentimentalizing of the past is more and more foreign to the practical sense of the average man. Artistic consistency is never ruled by dates, and emotional power in architecture can never be achieved until the larger matters of plan and composition have entirely absorbed and reformed the details of architectural expression like mouldings, columns, and ornamental forms which make 'style.'

"Style freedom will not mean the necessary abandonment of all the forms the past has given us. Forms which men have loved through the centuries will not pass away at the threat of a theory, nor will reverence for them prevent the creation of new forms."

Here is a declaration of independence and the result will be, we hope, as Mr. Hamlin further says: "The questions that will be asked of the details of a building in the future are not, is it correct, is it old, is it new? but rather, is it a natural, inevitable result of its place, its function, and material; and above all, is it beautiful, does it speak deeply to the emotions as all great art must?"

After all, it is only the man of small talent, nowadays, who looks chiefly to the past for his inspiration; he lacks in creative ability if he does not see the wonderful opportunities that are being offered in these days of many new materials and many new needs for special planning.

Mr. Harmon in his beautiful Shelton Hotel has given us a notable example of meeting an opportunity with originality and fine taste, and Mr. Corbett, to whom we owe many things beside the 42d Street Bush building with its ingenius effects and lovely details, is pointing the way to a New York of the future that looks like a bad dream, but with our increasing congestion may, after all, become a reality.

We are living in a wonderful age and nothing is any longer impossible.

Lottery Tickets versus Bonds

NOWADAYS, when a great building enterprise is contemplated, about the first consideration is the matter of financing, and bonds are issued and sold to whoever will buy, to supply immediate funds.

The sums involved in some of our modern buildings are stupendous and the interest charges during a number of years amount to a fortune.

One of the most widely known of England's great architects, with whose name we associate a certain delicacy of design and classisicm both in his architecture and interior decoration, Robert Adam, was a pioneer in giving London a group of residences built on ground that was practically useless, except for coal sheds and tenements.

It was to his and his brother's foresight that Durham Yard was transformed into one of the most fashionable and attractive residential parts of the city.

He leased from the Duke of St. Albans, for an annual rental of twelve hundred pounds, the property upon which, after clearing out the old structures, was built the famous Adelphi.

In one of the houses the great actor David Garrick made his home. Of the buildings Horace Walpole, an amateur critic and dabbler in the arts, said, "warehouses laced down the seams, like a soldier's frill in a regimental old coat."

The Adams had their troubles over the accusation of encroaching too far upon the river bank and, then, as now, there were not wanting all sorts of critics who found occasion for ridiculing both the architecture and the business methods involved.

The Adams were Scotch and one of the stories was to the effect that they imported workmen of their own race and paid them lower wages than was paid to English bricklayers and laborers. Troubles multiplied until they became involved in serious financial difficulties. To raise funds they obtained by act of parliament the right to sell shares in a public lottery. There were 4,370 tickets of 50 pounds each, out of which there were 108 prizes, ranging from 50,080 pounds to 100. The drawings created considerable excitement and the result was all that could be expected and filled the pockets of the builders with all the capital they needed.

The Adelphi embodied the Adam style, that was to become so popular, and the architects were in great demand among the rich and fashionable for residential work.

Economy of building was obtained by what was then a novelty in the way of a patent stucco and by the employment of an Italian named Pergolesi brought from his native country to superintend the plaster work.

This stucco enabled Adam to decorate his exteriors cheaply with the delicate arabesques and classic details of which he was so fond, and by which he is chiefly known today.

The Adam vogue continues, witness the Vanderbilt Hotel and countless pieces of furniture sold in the auction rooms as of Adam design.

His fame rests on his interiors mainly and he had with an exceptional knowledge of classic forms a natural and cultivated taste, an artistic sense and feeling quite out of the ordinary.

No doubt many of our modern real estate speculators would be glad of the privilege to sell lottery tickets instead of bonds, and we dare say that the dear public would fall for them, just as they did in the reign of George III.

The Adelphi facing on the Thames, above its range of arches, reminds us of the way that the slum regions of the East River in New York are giving way to private homes of the rich and to many apartments of the co-operative type.

And stucco and tile and terra-cotta have come into their own, and, alas, in the hands of some of our architects and builders are being used in a manner that would make Robert Adam groan in his tomb in Westminster Abbey.

The Question of Endurance

THAT Mr. Bossom started something in his article about the question of endurance of our steel skyscrapers, goes without saying. From recent investigations of the condition of the steel in old buildings that have been torn down, the answer, however, would seem to be very much in favor of the stability and lasting qualities of any steel building constructed under the careful supervision of our architects and engineers.

Mr. Frank W. Skinner, writing to the New York *Times*, says:

"No art in the world has ever been so rationally developed and reached such perfection and reliability as the design and construction of steel bridges and buildings, which, wholly created within the last forty years, embody the perfection of mathematics, mechanics, and metallurgy, making the buildings the safest and most enduring of structures.

"I have closely followed their construction since the erection of the first steel building, and have yet to see or hear of any failure or peril from deterioration of steel-work reasonably well protected and maintained. I do not believe that such danger exists, or ever will exist."

The problem is one that time alone can ultimately solve to the satisfaction of future generations. For the present we shall have to continue to be willing to trust to the skill and experience of those in authority, and accept the calculations of the same types of men who have given us such wonderful structures as the Brooklyn Bridge and the other great steel roadways over water that bear their burdens of ever-increasing traffic without any apparent weakening.

"Steel frameworks are designed and proportioned accurately for the required loads and service. The steel and its treatment correspond not only to the amount of possible stress but to its quality. The structural steel is the strongest, most perfect, uniform, and durable of all major building-materials; it cannot be burned up and cannot snap off and break like stone and timber, but yields very slowly by bending or stretching; a bar under a heavy pull will elongate a quarter of its length or more, before breaking.

"Moisture cannot take place in their metal skeletons. It can only affect steel-work when reasonable provisions against it are not provided or maintained."

"Dry Rot" Destroys Hundreds of Millions of Dollars' Worth of Property Annually—Preventive Measures

ROT is to wood what rust is to iron and steel. If rot can be prevented wood will last until it wears out; which, in the case of the frame and walls of a house, might be centuries. Wooden furniture in Tutankhamen's tomb was found to be sound after three thousand five hundred years. On the other hand, huge timbers have been known to rot through at the ends in less than four years.

Although Americans are the greatest users of wood in construction and in industry, they are surprisingly indifferent to the prevention of rot, which is largely a matter of a little care.

The Research Bureau of the National Lumber Manufacturers Association has made a popular summary of a study of the causes of rot and its prevention, prepared by C. J. Humphrey (pathologist of the U. S. Forest Products Laboratory) for the National Building Officials Conference.

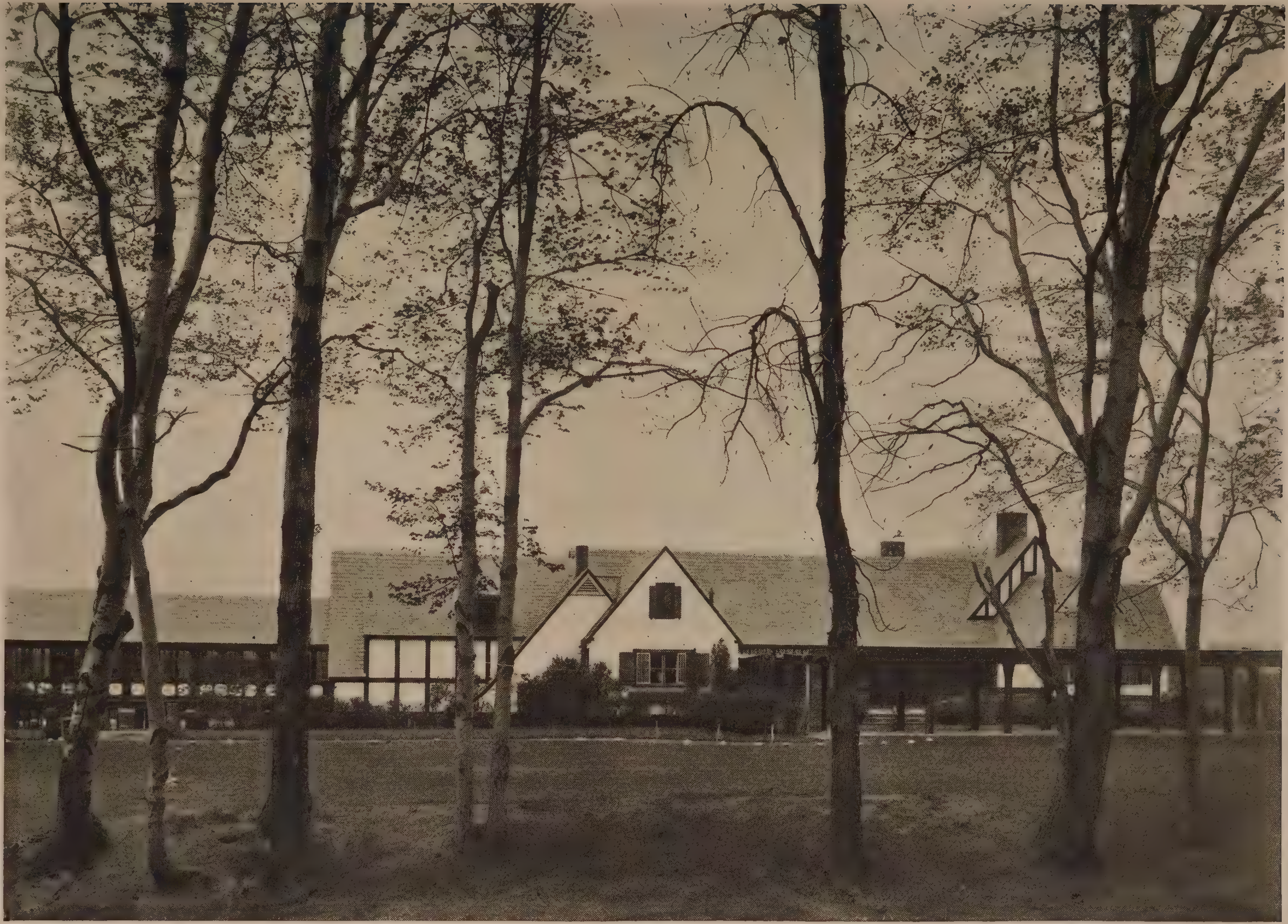
According to this summary rot is impossible in the absence of moisture. So-called dry rot, which causes most of the decay damage to residences, occurs under conditions of dry (no booze reference intended) occupancy of a building, and is due to the fact that the minute plant, or fungus, that causes the disintegration of the wood cells has managed to set up a "water-line" of its strand-like secretions from the earth or some other moisture-laden base through the wood.

It should be noted that posts, beams, and joists should not have concrete moulded around their bases or ends, as pockets may be thus formed that will hold enough moisture to make a base for a far-flung colony of fungi. Under no circumstances should wood in any manner or degree be in contact with earth unless it has been chemically impregnated and thus made immune to the attacks of the fungus.

The danger from rot in hot and arid or semiarid regions, such as the great plains and the Southwest, is very small, even when wood is in contact with the ground. The rust fungus finds it slow work above 85 and impossible above 115 Fahrenheit, but will wake up and renew activity after years of somnolence in an environment too hot and dry for a flourishing career. Extreme cold checks its operations, but does not kill it; it still gasps at 230 below zero.

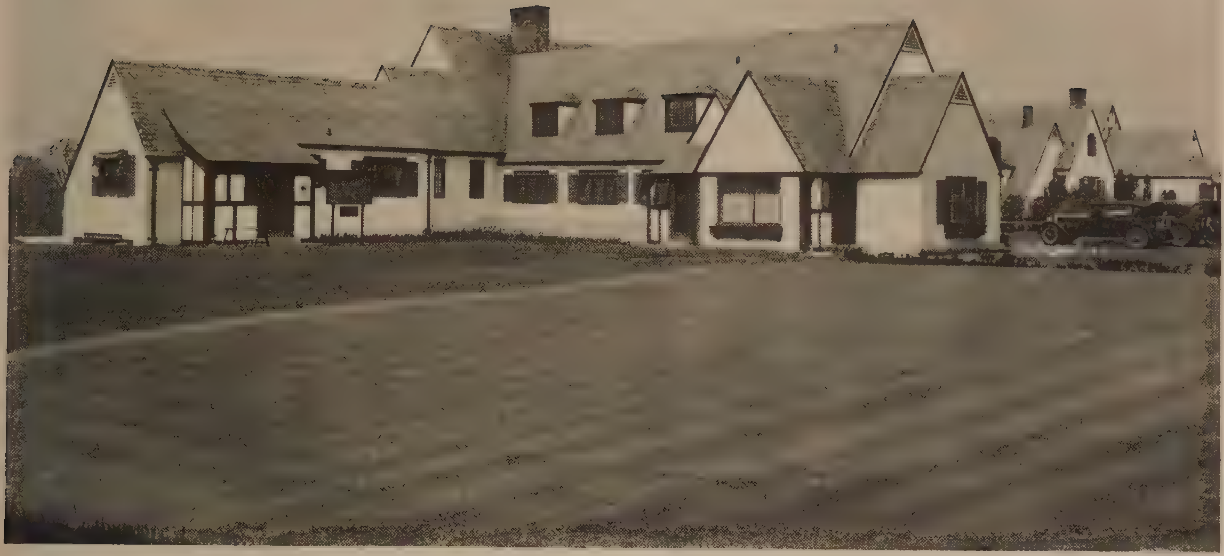
Buildings in warm and moist regions, or kept moist by their uses, offer quite different problems, but so far as the average commercial or dwelling frame structure is concerned dry rot is its only menace. If insulation be maintained from all moisture sources it will be effectually suppressed.

Here are some of Mr. Humphrey's "don'ts" to be observed in resisting rot: Don't pile your lumber on the ground. Don't let unpreserved wooden members of a building touch earth. Don't lay wooden floors over concrete without treatint the subfloor and the sleepers. Don't place joists, posts, etc., in masonry walls without ample ventilation around the sockets. Don't oil or paint wood until it is thoroughly dry. Affirmatively, he says, provide ample cross ventilation under buildings without basements; clean up all wood rubbish; keep the roof sound; look out for leaks around and under door frames; watch cracks in stucco; and inspect all lumber for signs of decay before it goes into the building. If infection occurs despite precautions, promptly remove the diseased pieces, for rot is progressive and infectious.

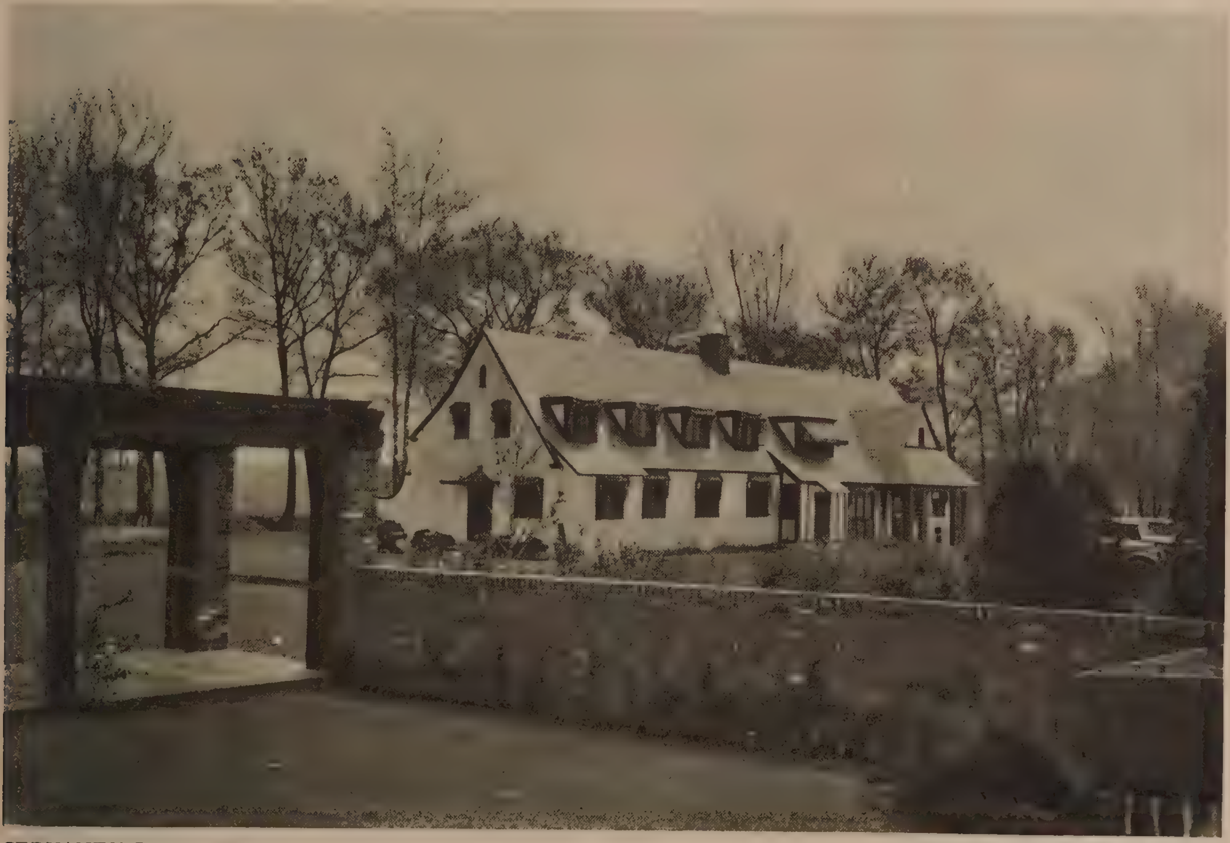


LONGMEADOW COUNTRY CLUB, LONGMEADOW, MASS.

Patterson & Willcox, Inc., Architects.



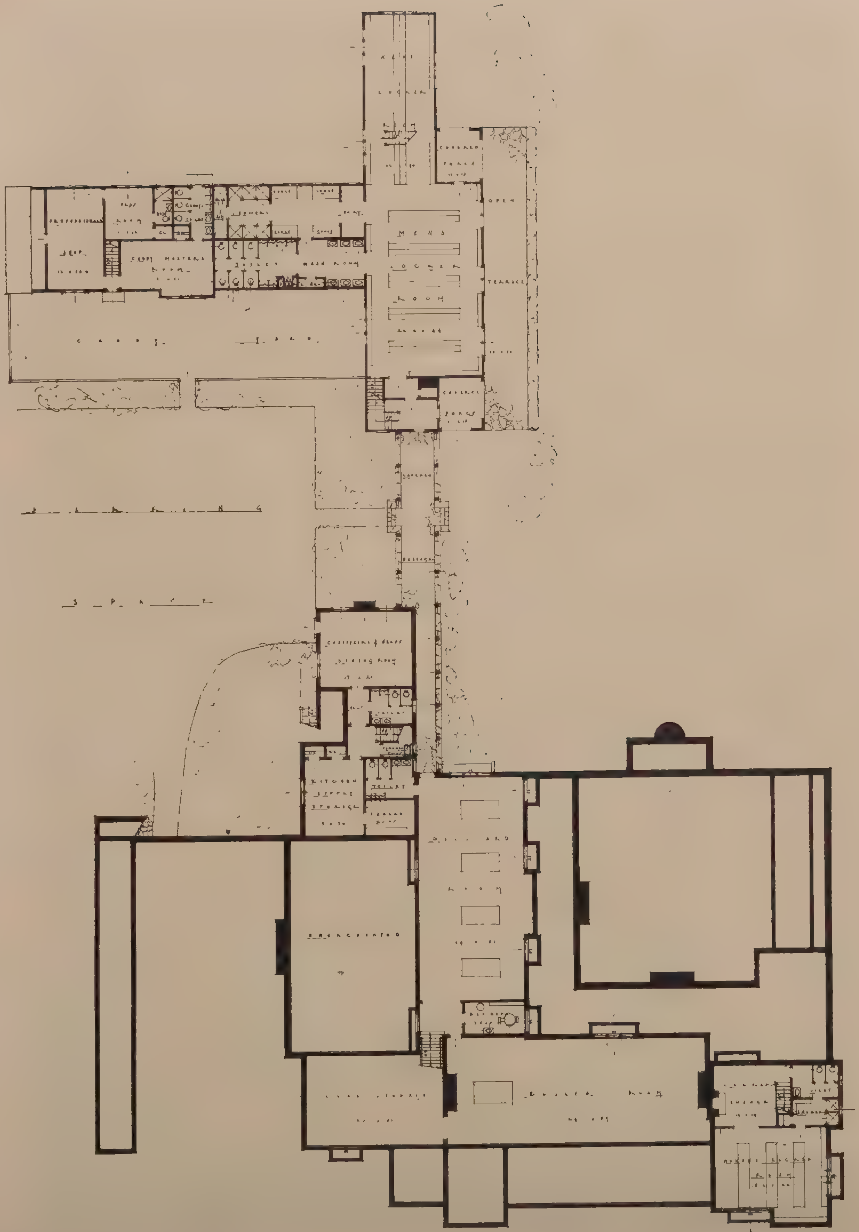
LADIES' WING AND MANAGER'S APARTMENT.



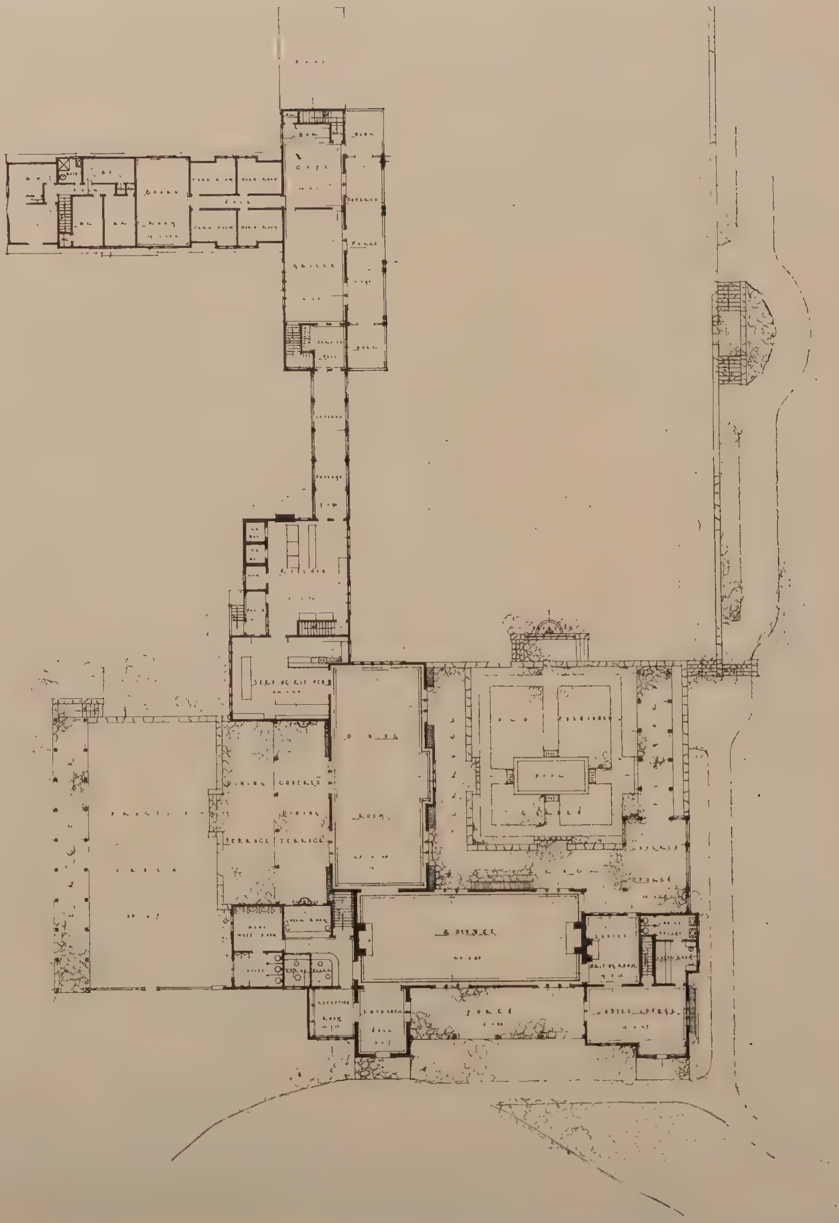
SERVANTS' DORMITORY.

Patterson & Willcox, Inc., Architects.

LONGMEADOW COUNTRY CLUB, LONGMEADOW, MASS.



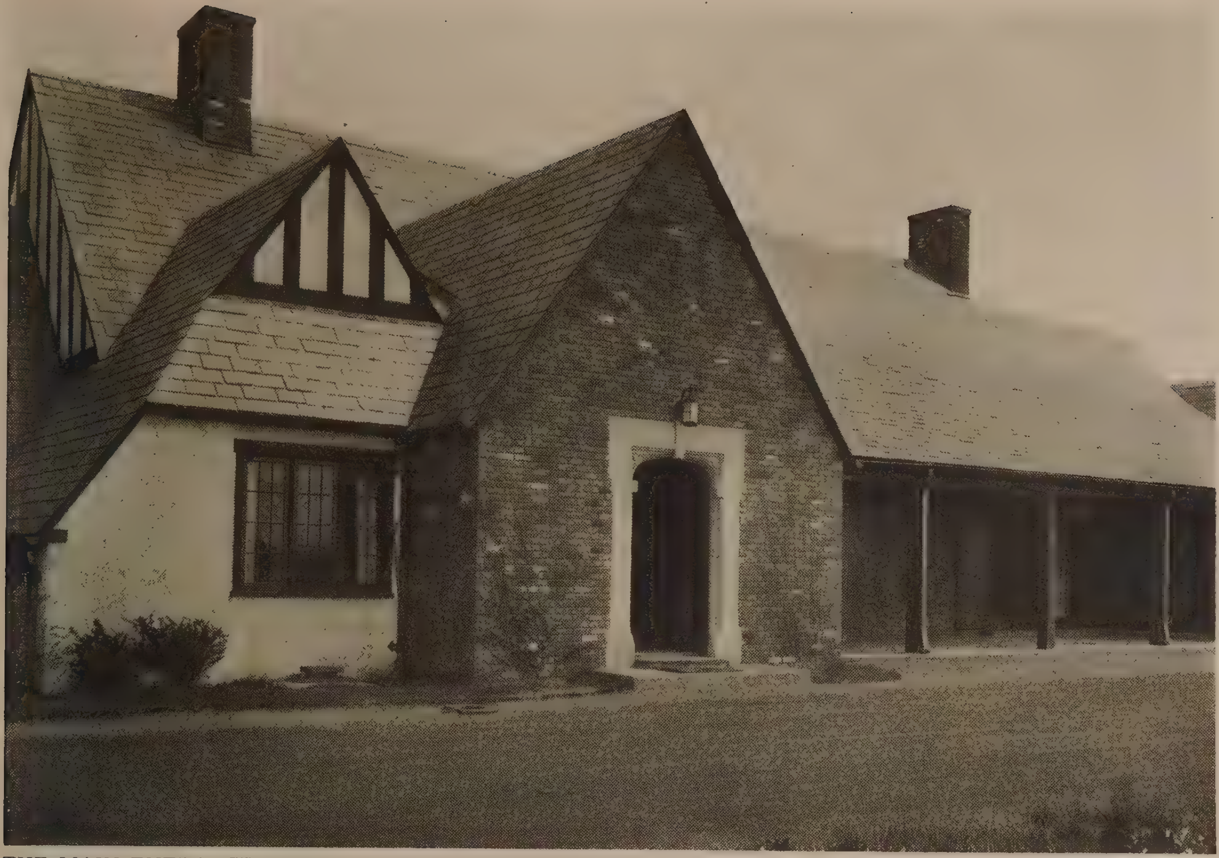
GROUND-FLOOR PLAN.



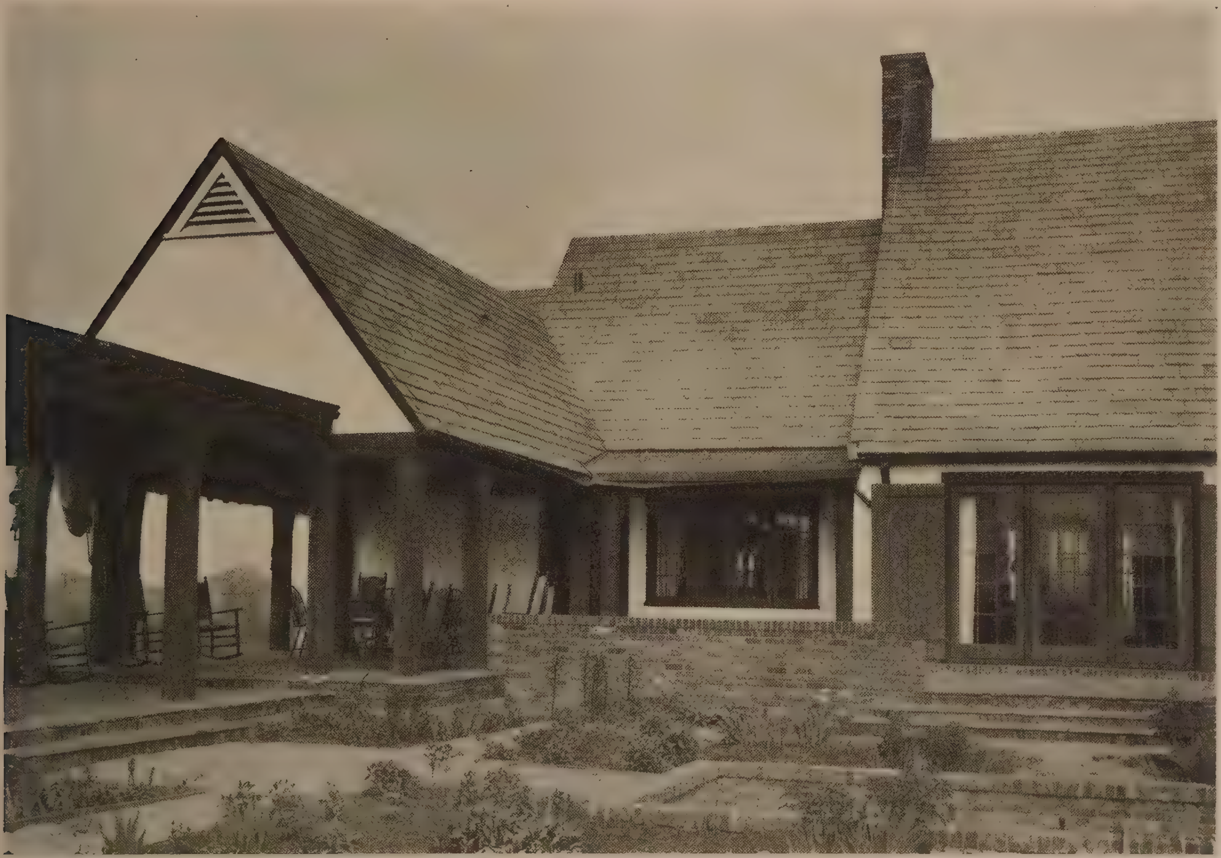
FIRST-FLOOR PLAN.

Patterson & Willcox, Inc., Architects.

LONGMEADOW COUNTRY CLUB, LONGMEADOW, MASS.



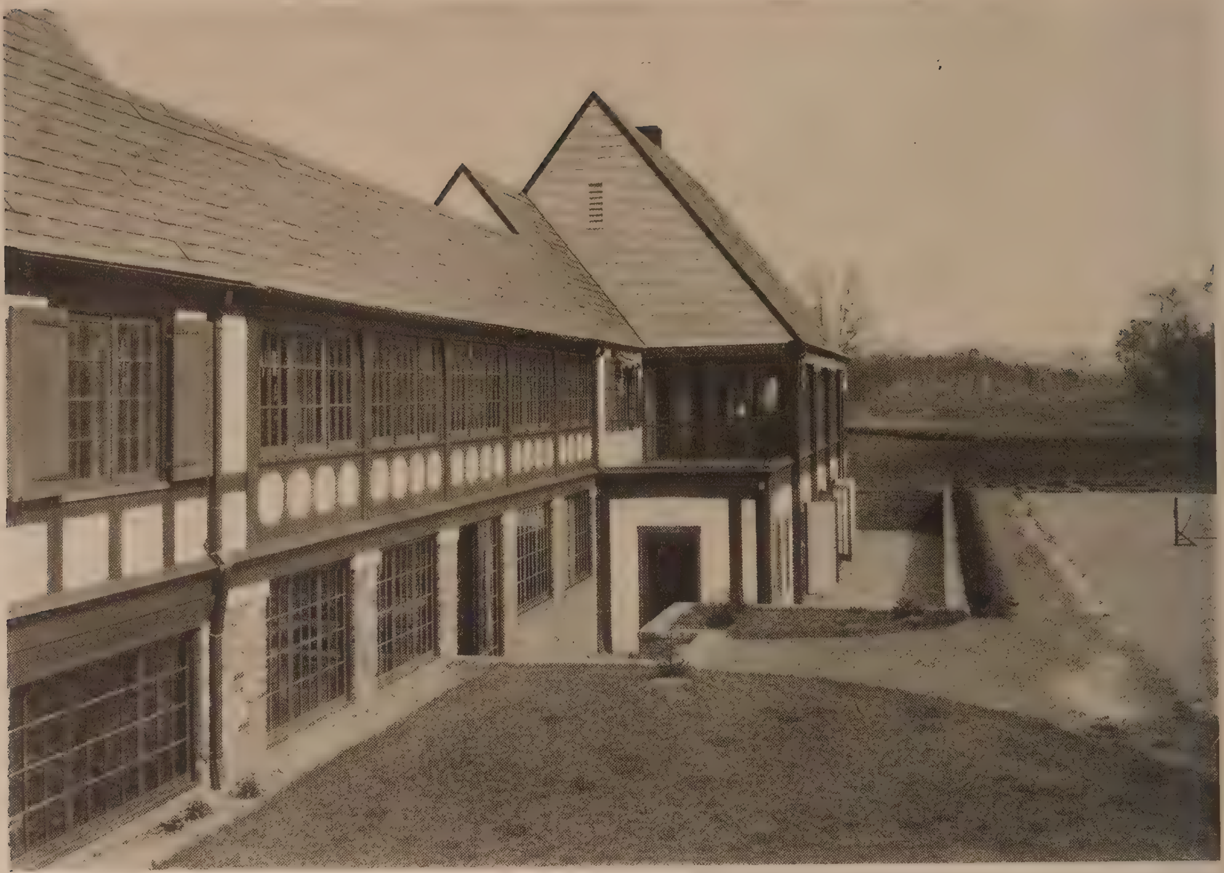
THE MAIN-ENTRANCE DOOR.



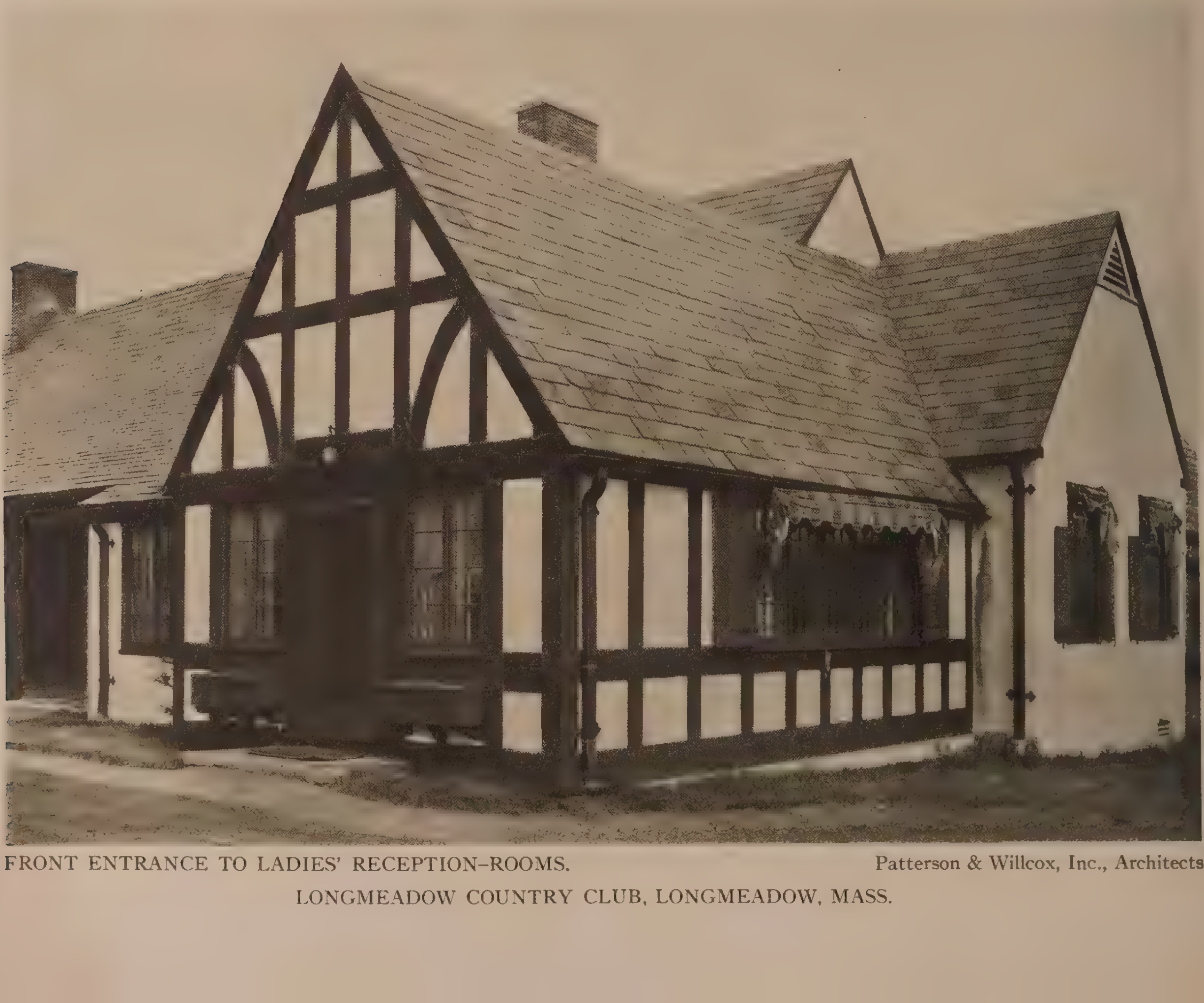
PORCH FROM LADIES' RECEPTION-ROOM.

Patterson & Willcox, Inc., Architects.

LONGMEADOW COUNTRY CLUB, LONGMEADOW, MASS.



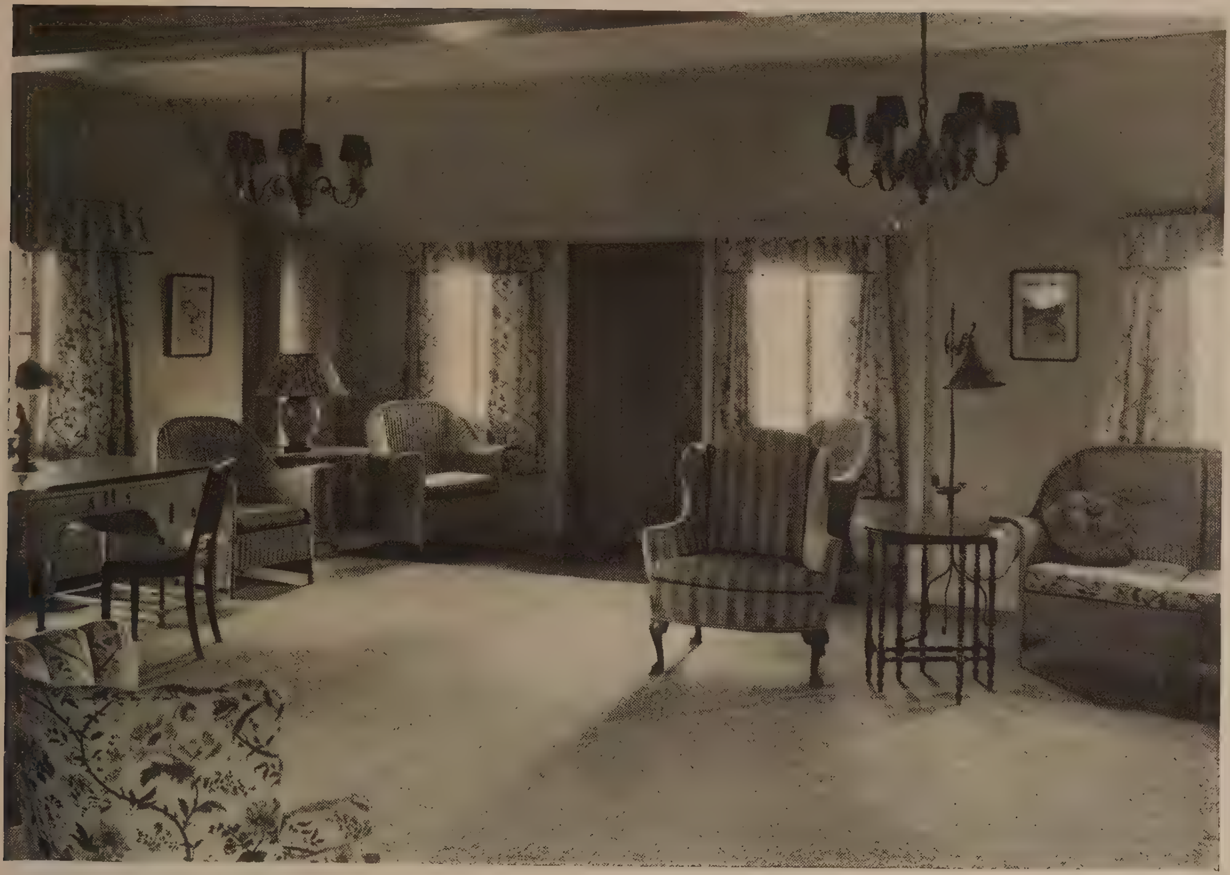
MEN'S WING, SHOWING GROUND ENTRANCE TO LOCKER–ROOMS.



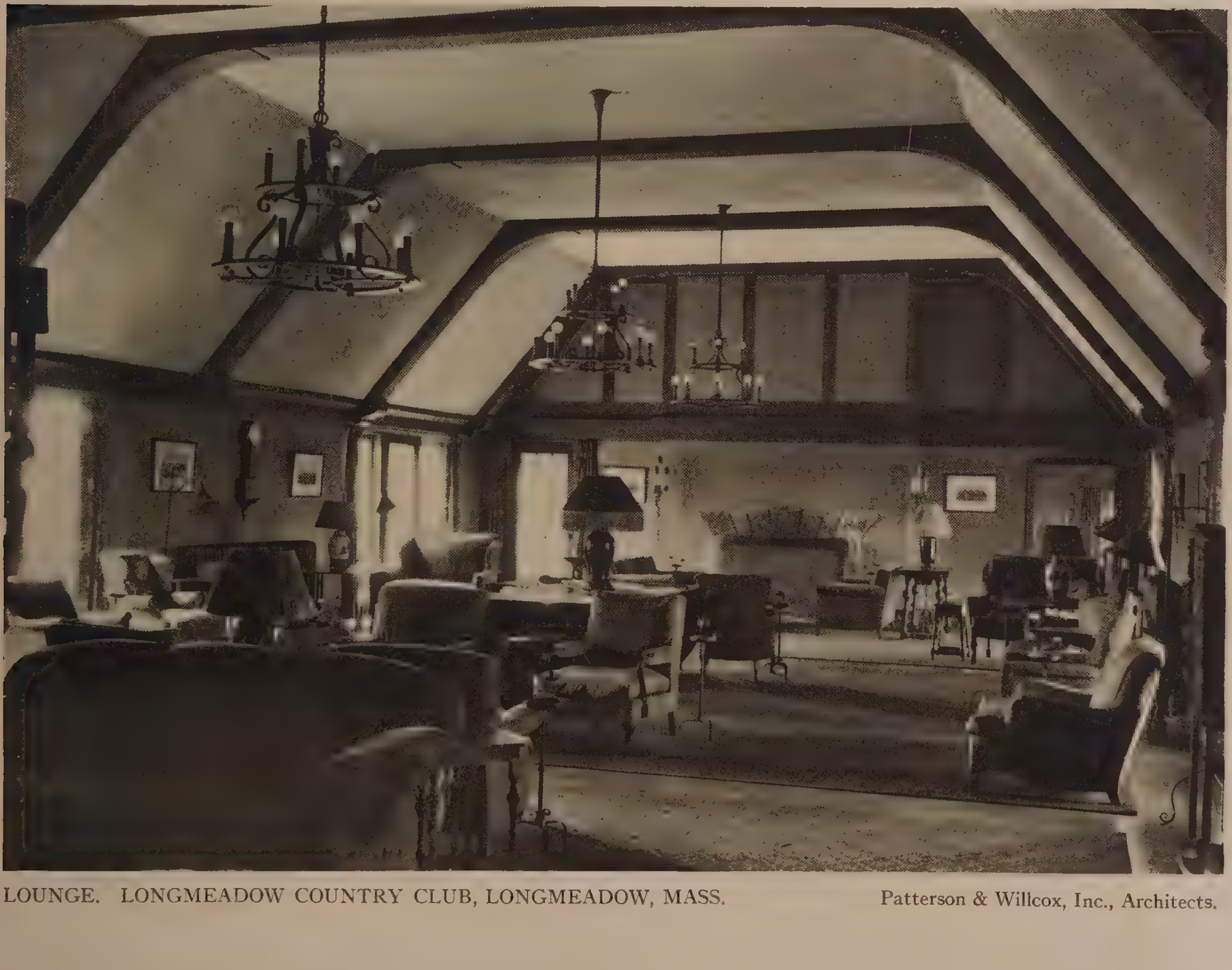
FRONT ENTRANCE TO LADIES' RECEPTION–ROOMS.

Patterson & Willcox, Inc., Architects.

LONGMEADOW COUNTRY CLUB, LONGMEADOW, MASS.

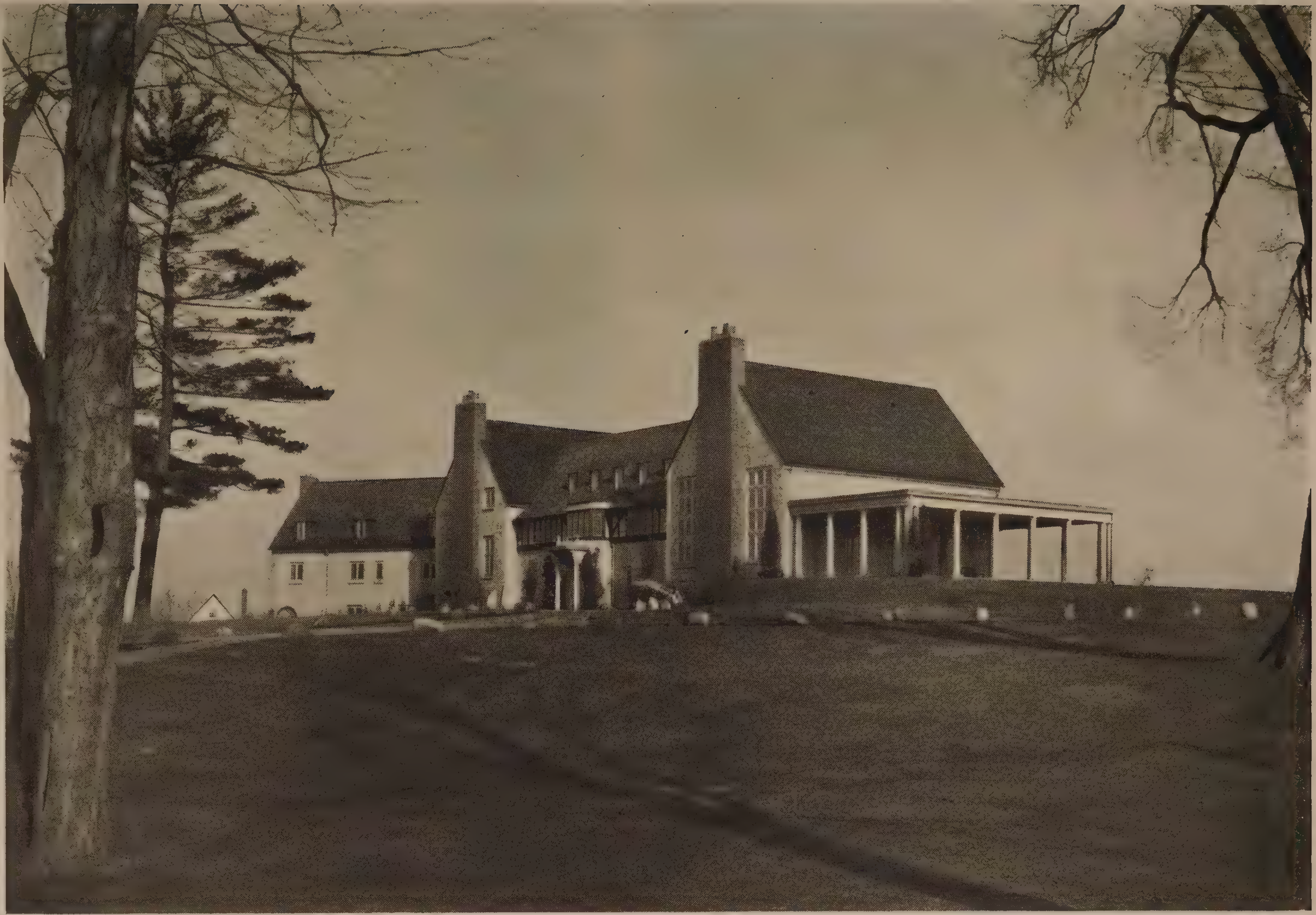


LADIES' RECEPTION–ROOM.



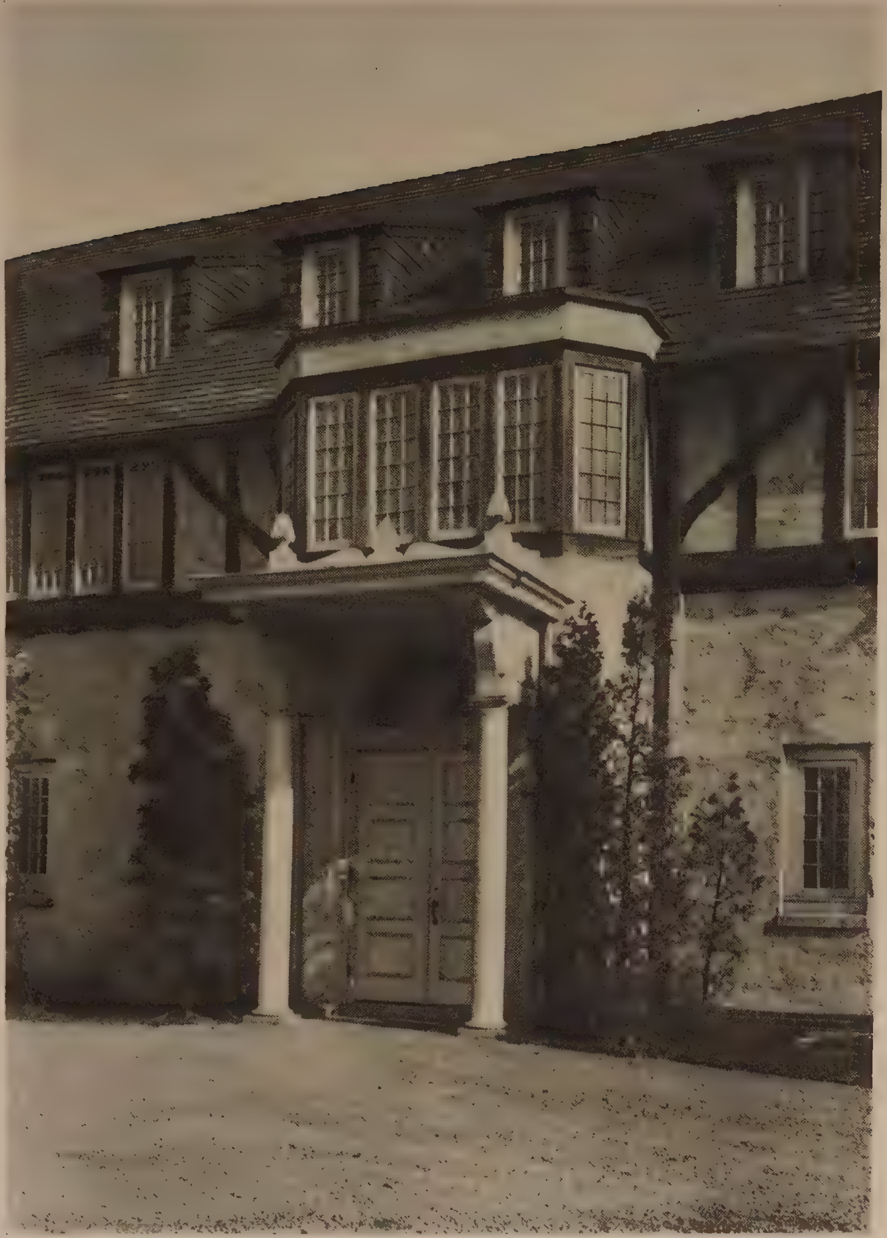
LOUNGE. LONGMEADOW COUNTRY CLUB, LONGMEADOW, MASS.

Patterson & Willcox, Inc., Architects.

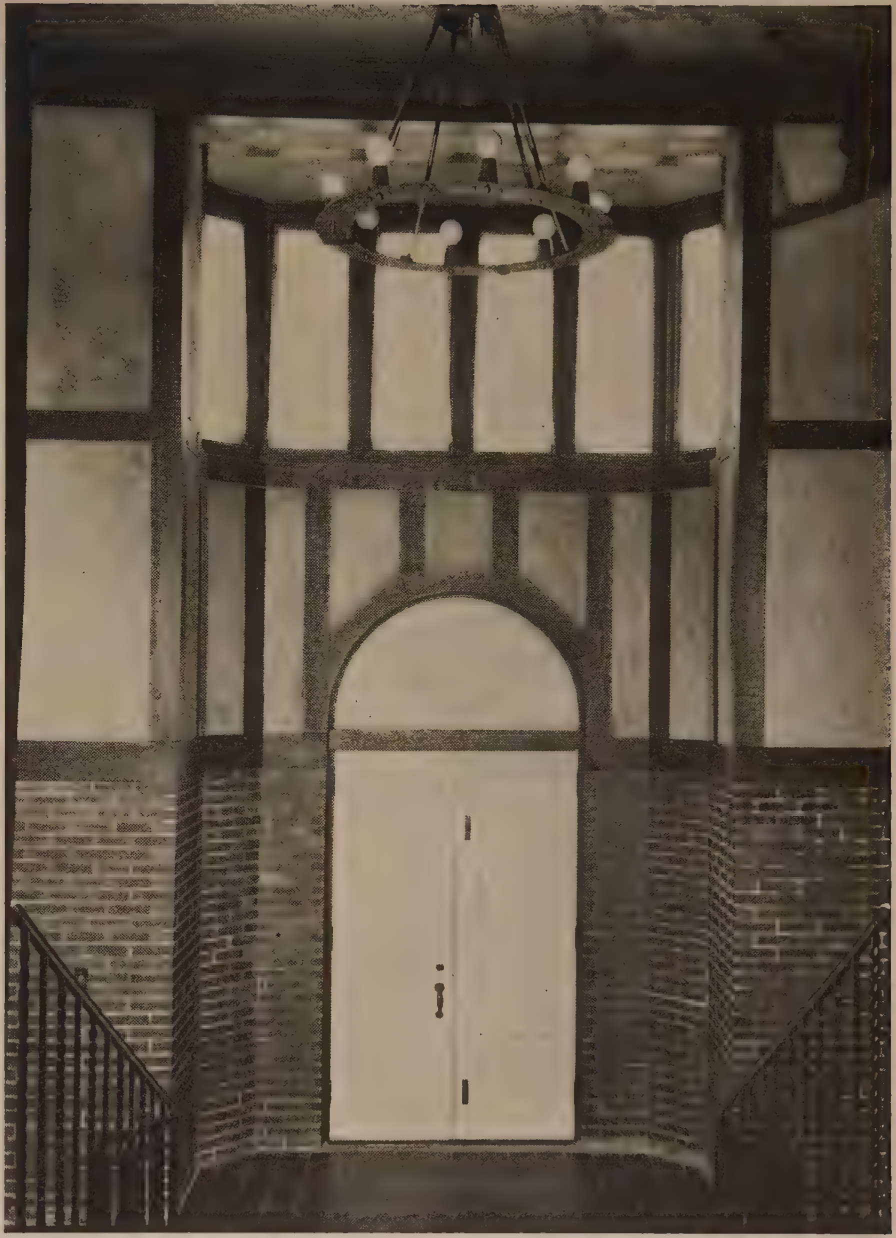


APPROACH FROM SENECA TURNPIKE, YAHNUNDASIS GOLF CLUB, UTICA, N. Y.

Linn Kinne, Bagg & Newkirk, Architects.



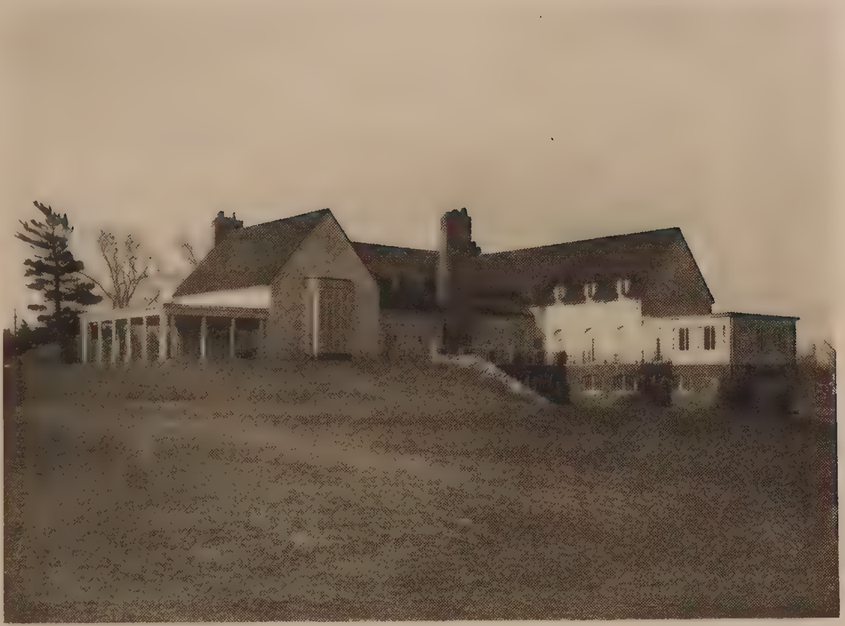
MAIN ENTRANCE.



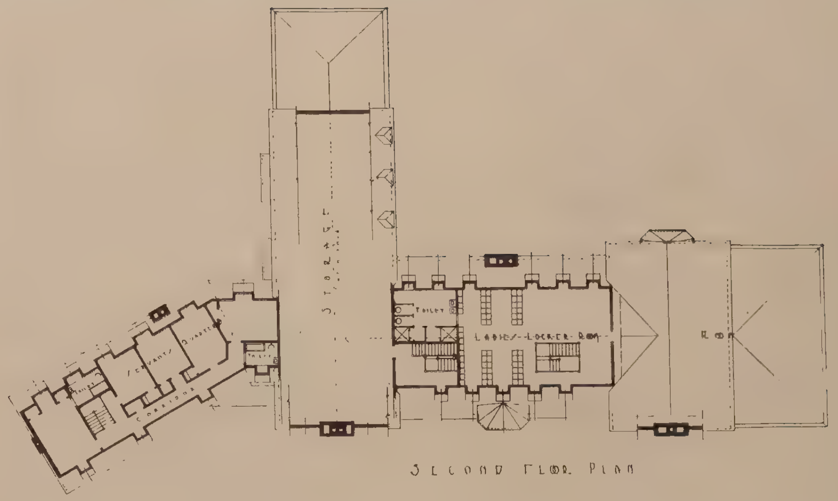
MAIN ENTRANCE–HALL.

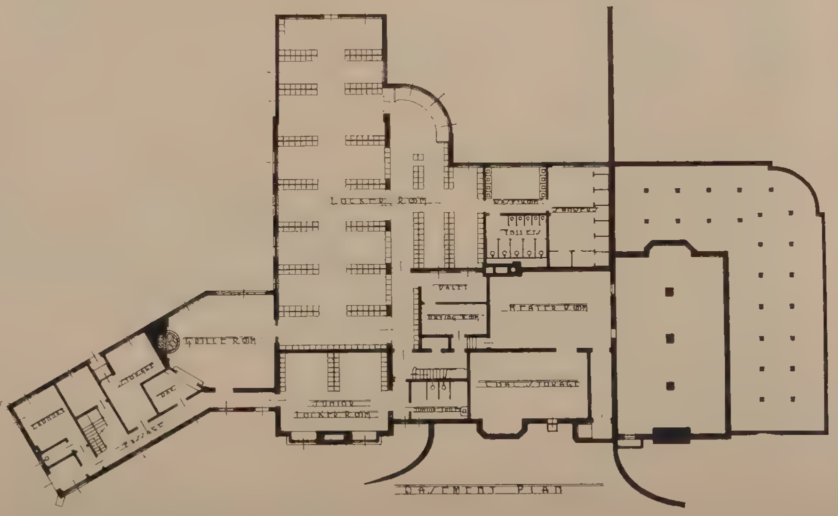
Linn Kinne, Bagg & Newkirk, Architects.

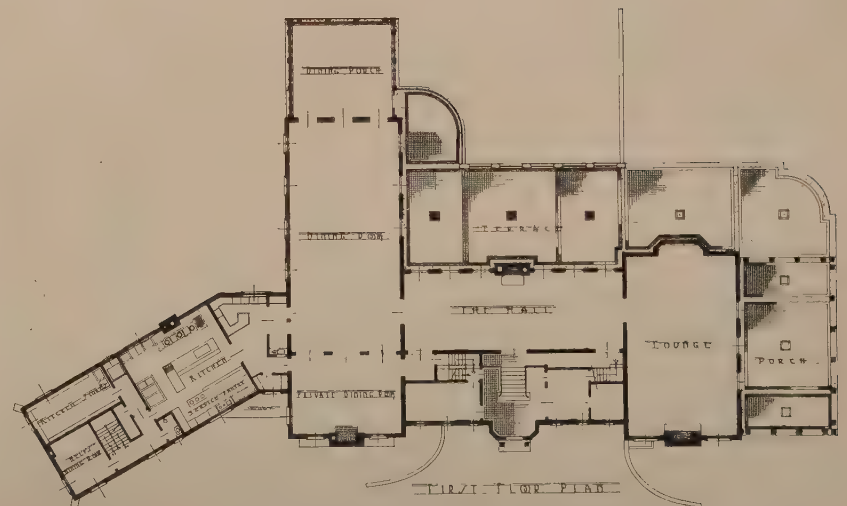
YAHNUNDASIS GOLF CLUB, UTICA, N. Y.



PORCH AND TERRACE SIDE.

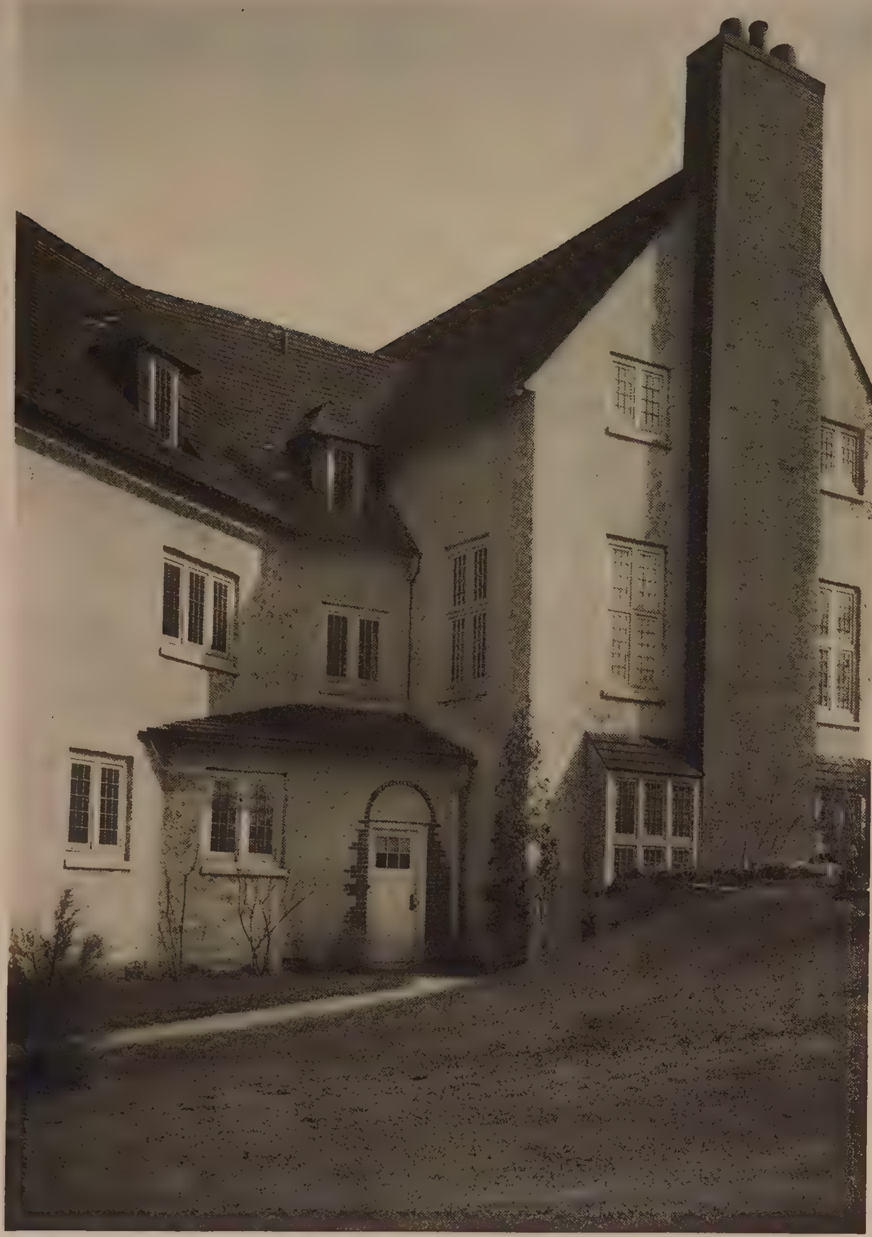




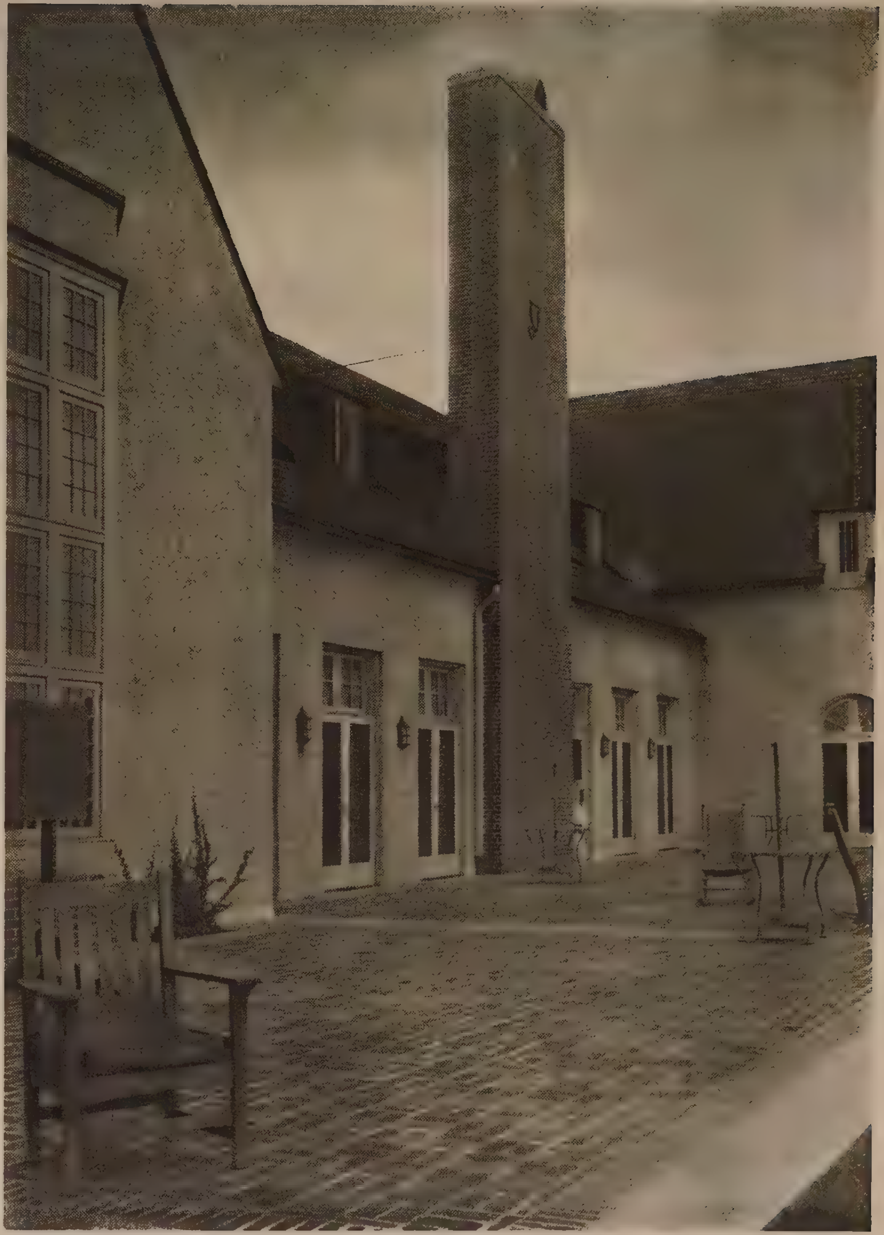


YAHNUNDASIS GOLF CLUB, UTICA, N. Y.

Linn Kinne, Bagg & Newkirk, Architects.



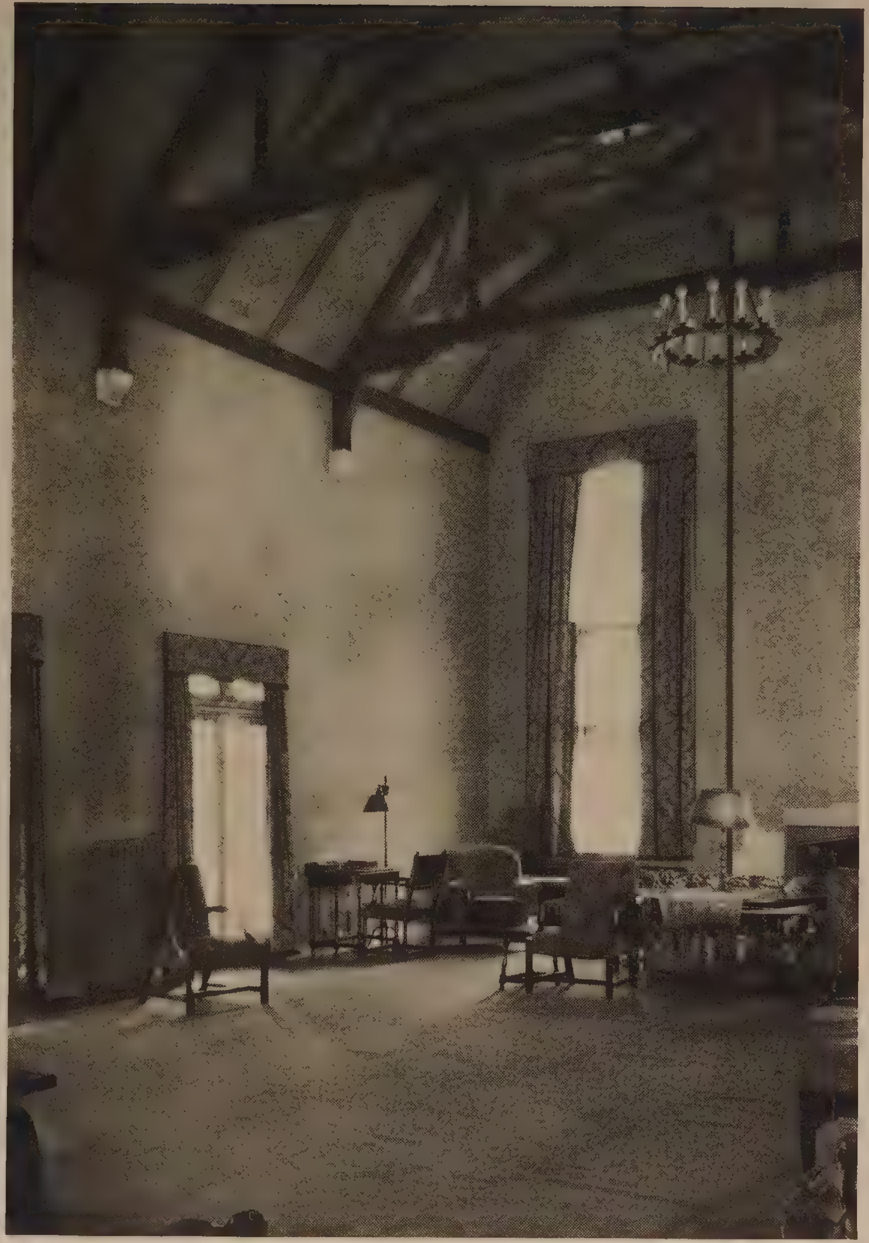
ENTRANCE TO MEN'S LOCKER-ROOMS.



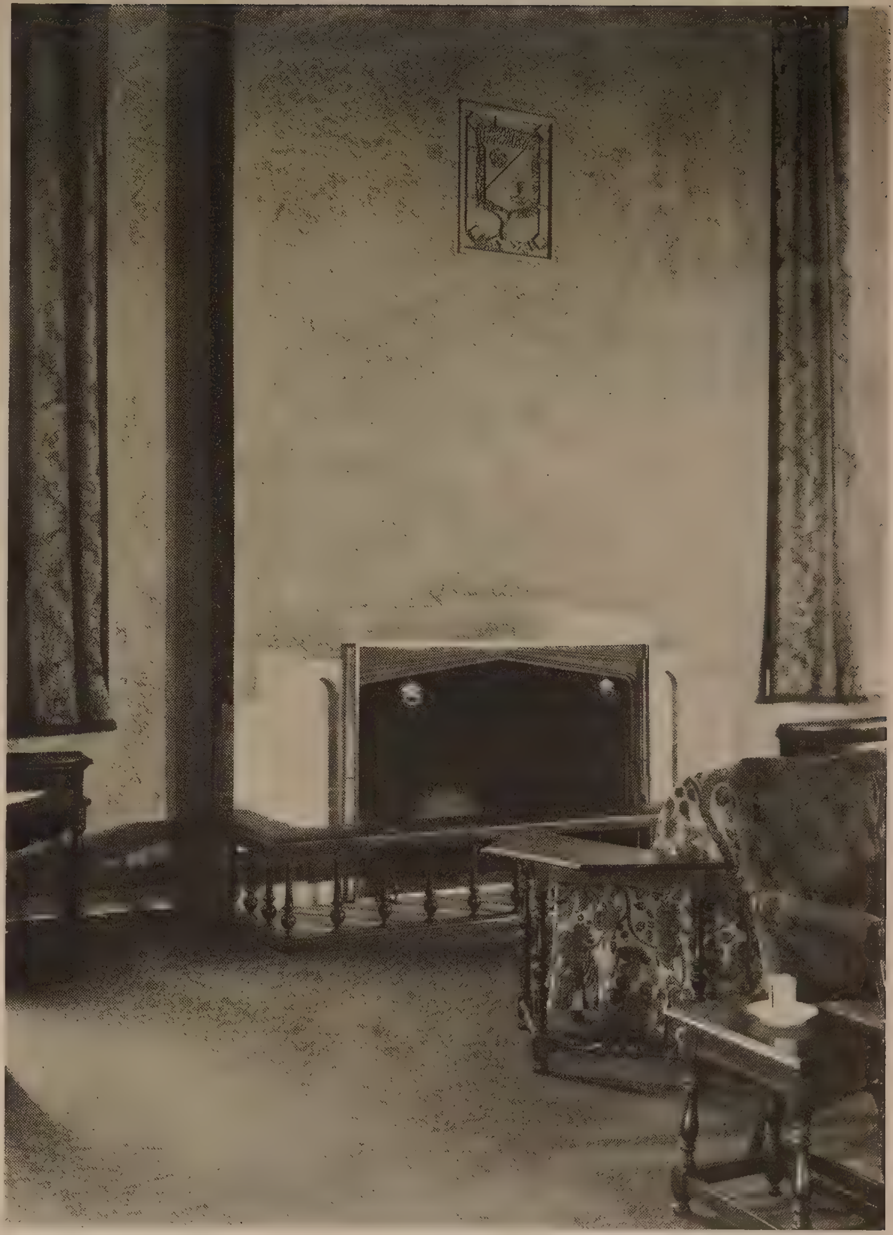
TERRACE.

Linn Kinne, Bagg & Newkirk, Architects.

YAHNUNDASIS GOLF CLUB, UTICA, N. Y.



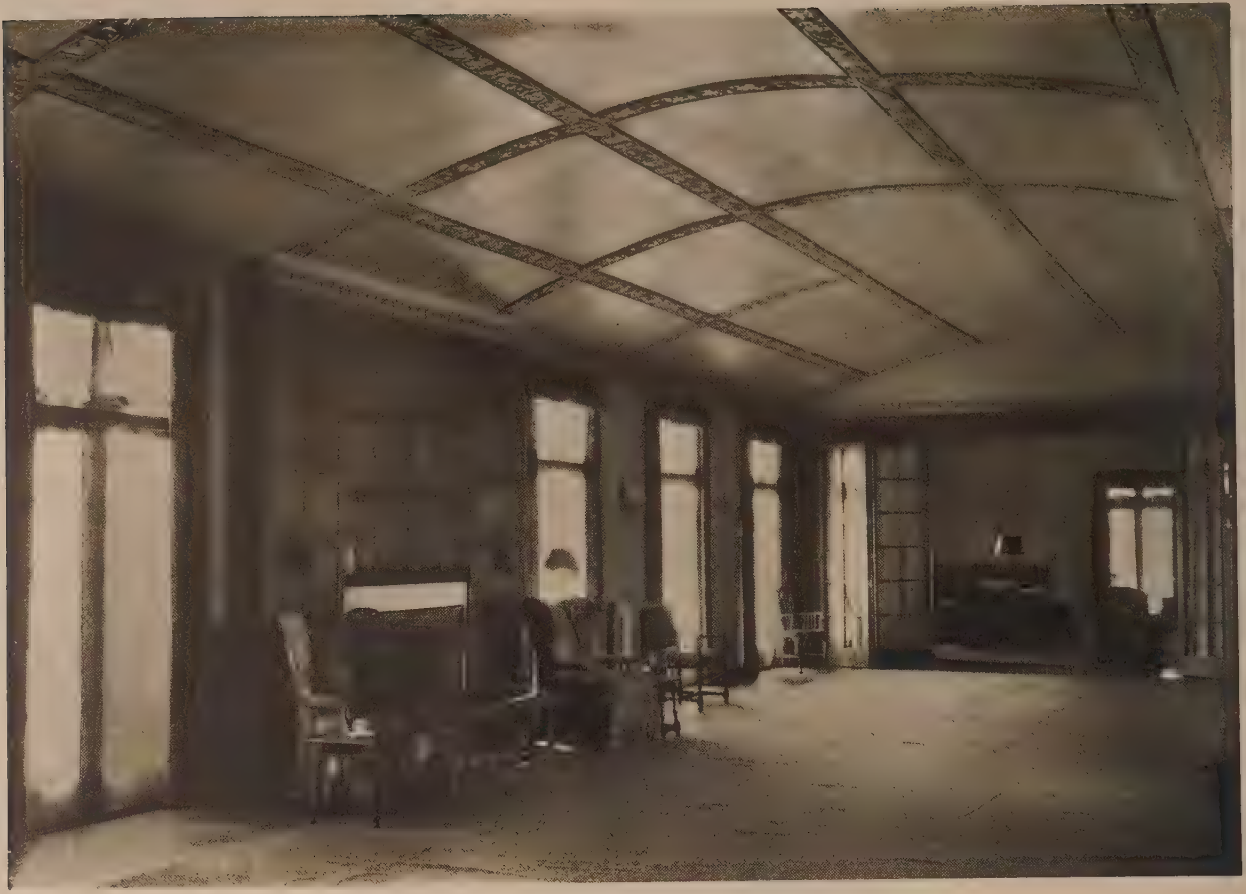
LOUNGE, SHOWING DOOR TO PORCH.



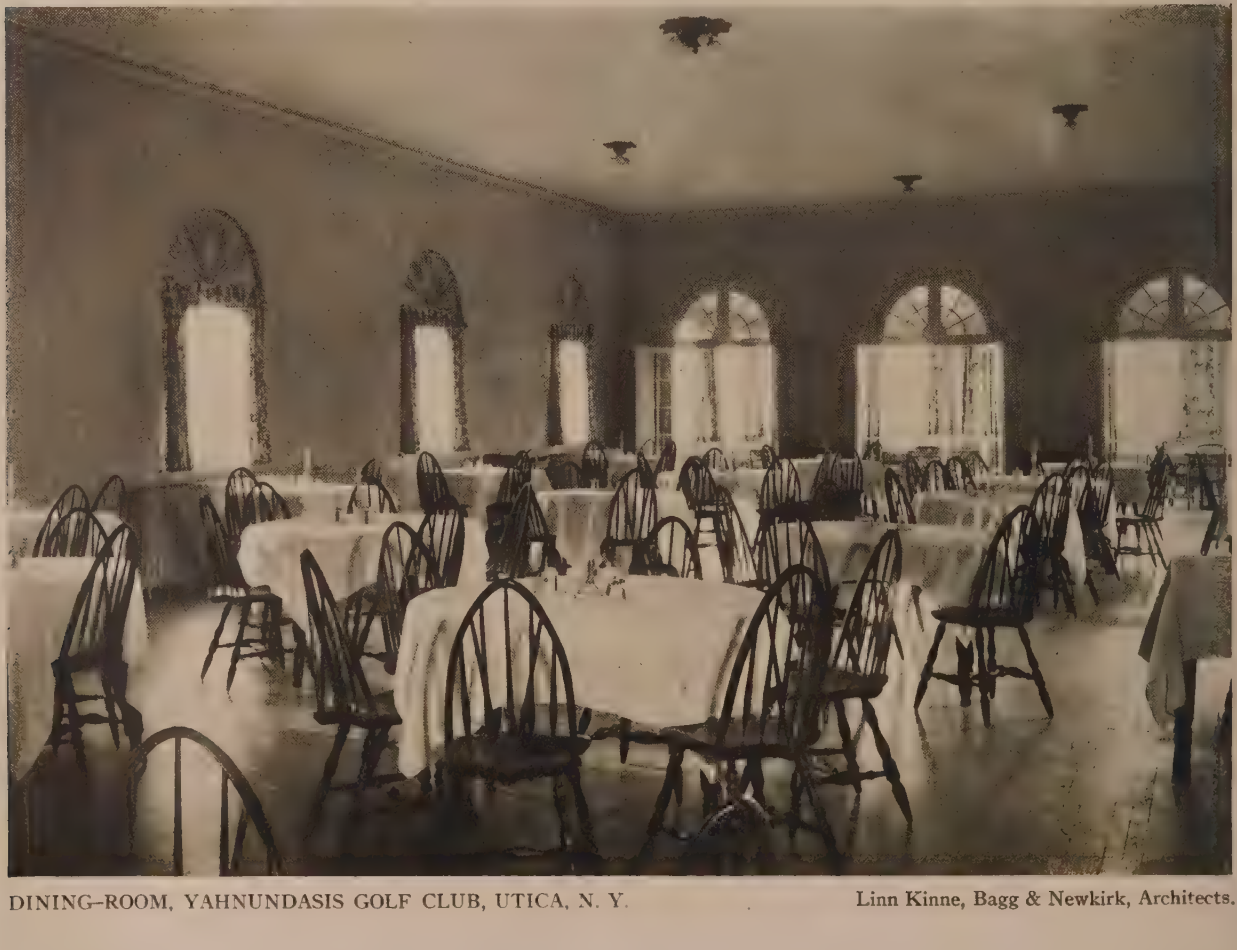
FIREPLACE IN LOUNGE.

Linn Kinne, Bagg & Newkirk, Architects.

YAHNUNDASIS GOLF CLUB, UTICA, N. Y.

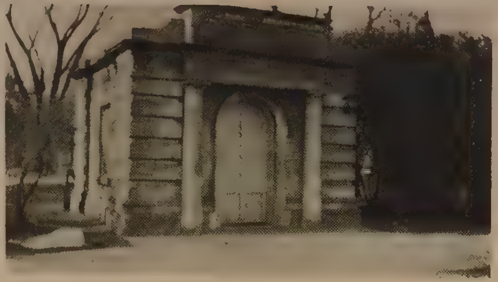


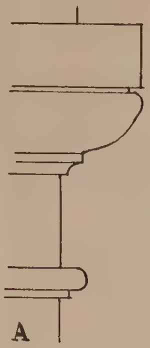
THE HALL, OPENING ON TERRACE.

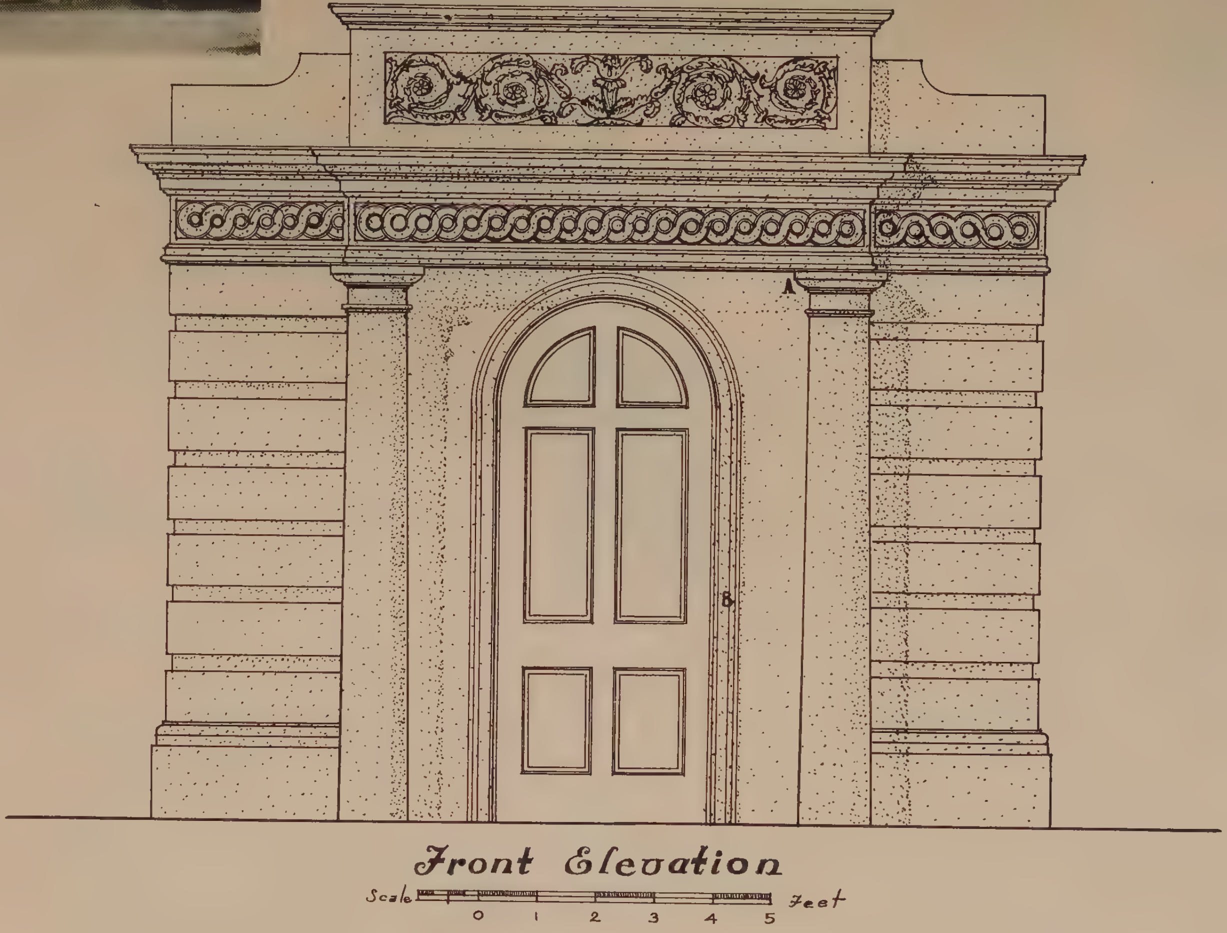


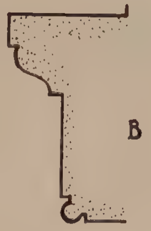
DINING–ROOM, YAHNUNDASIS GOLF CLUB, UTICA, N. Y. Linn Kinne, Bagg & Newkirk, Architects.

Plate No. 1









Front Elevation

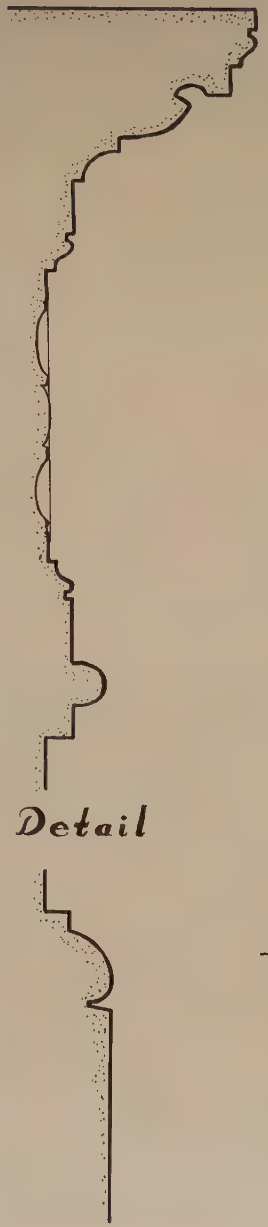
One of The Old Gate Lodges

From The U.S. Capitol, Washington, D.C.

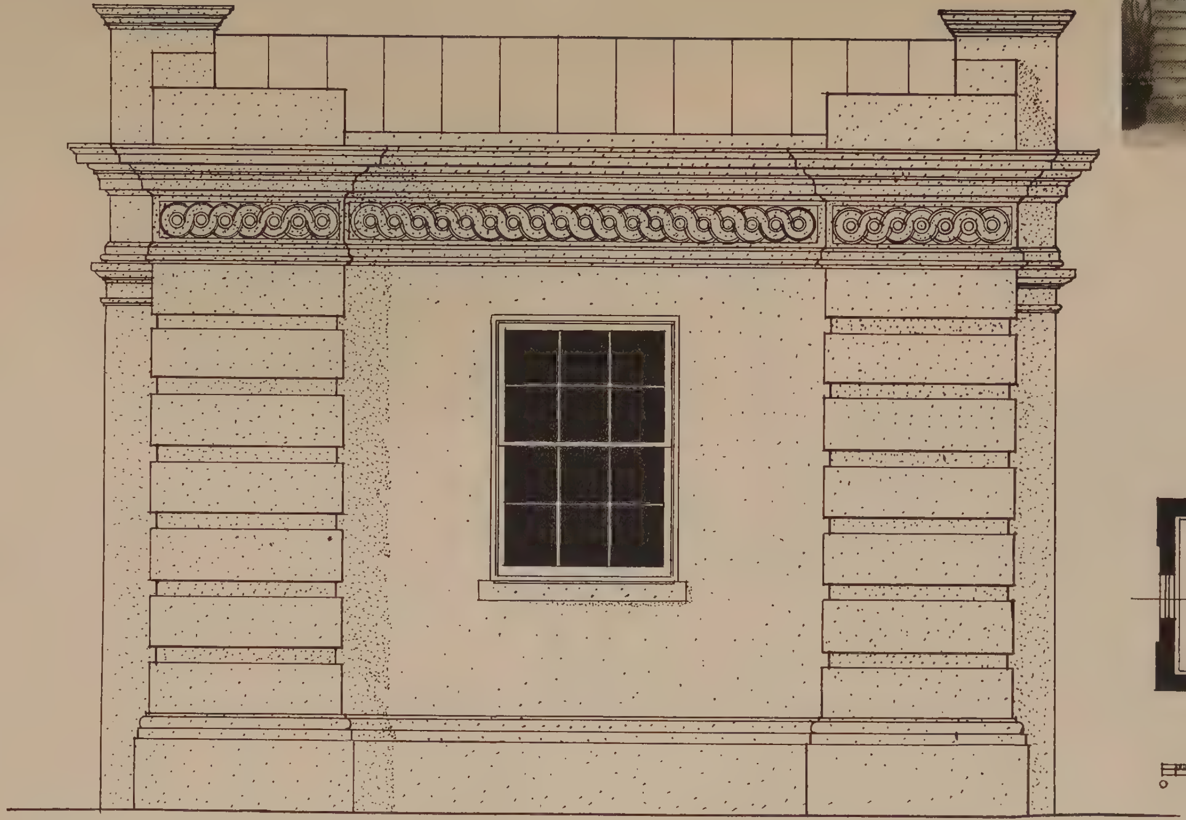
Was Designed By Bulfinch

Measured & Drawn by Albert P. Erb
Washington, D.C. Aug. 1924

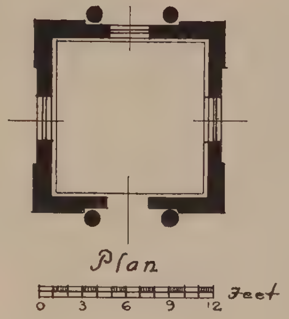
Plate No. 2



Detail



Side Elevation



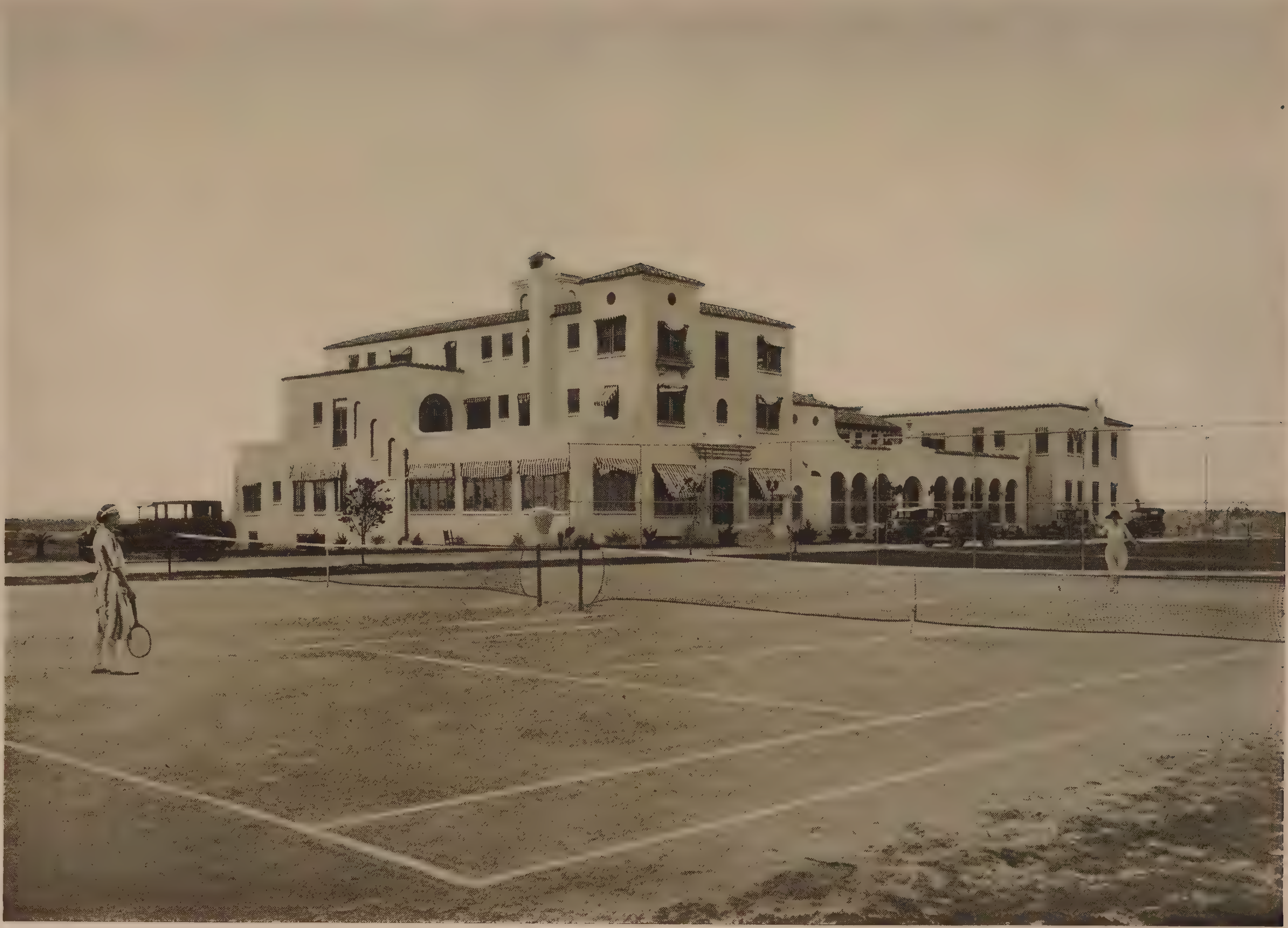
Plan

One of The Old Gate Lodges

From The U.S. Capitol, Washington, D.C.

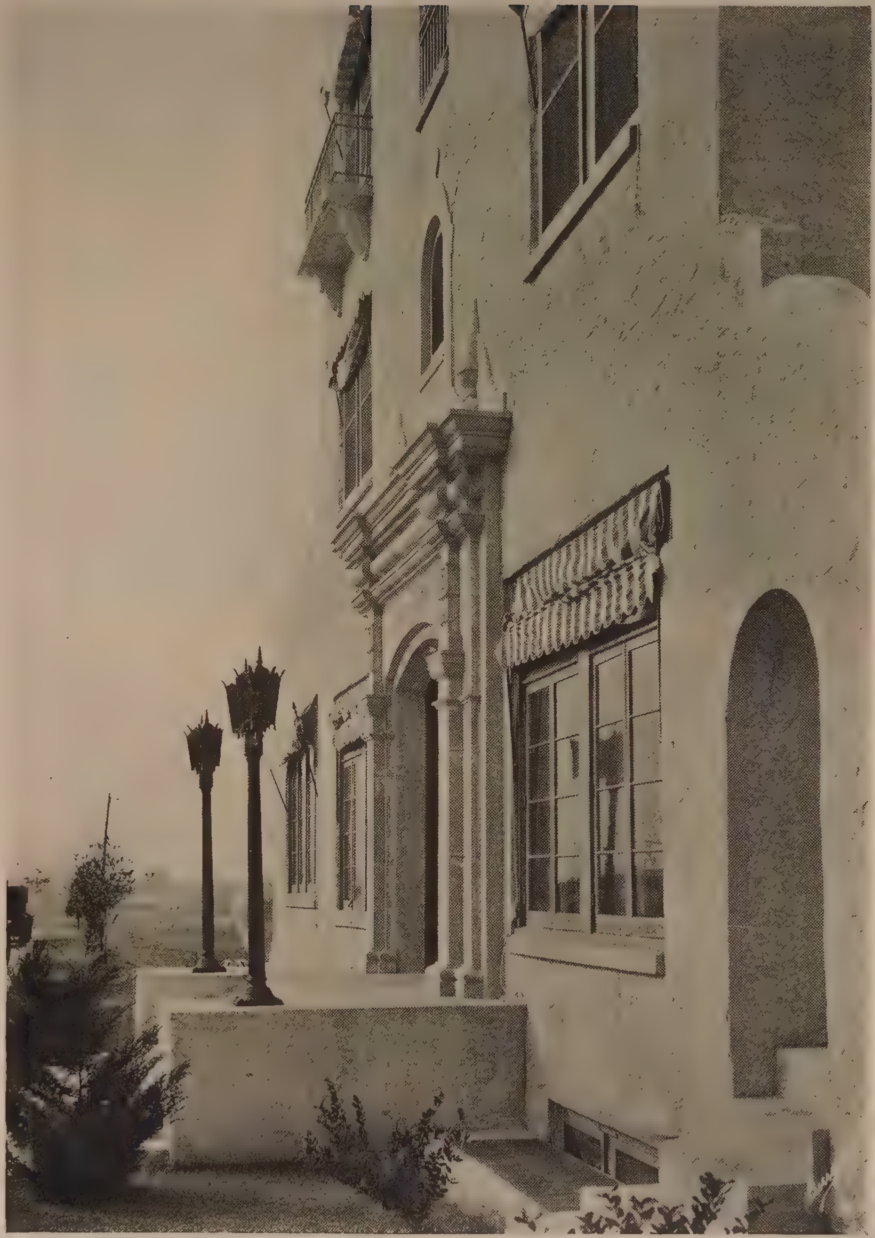
Was Designed By Bulfinch

Measured & Drawn by Albert P. Erb
Washington, D.C. Aug. 1924

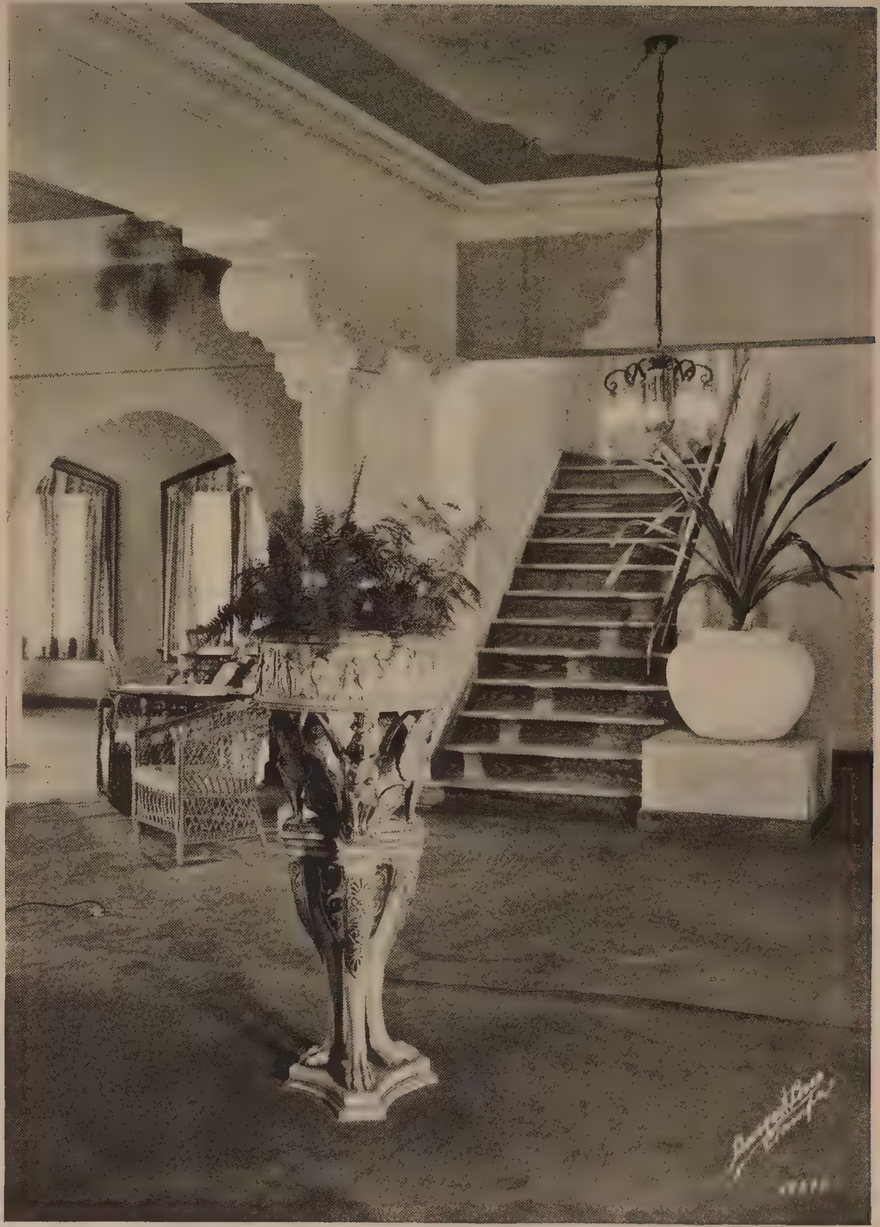


INDIATLANTIC HOTEL, MELBOURNE, FLA.

Lee L. Wade, Architect.



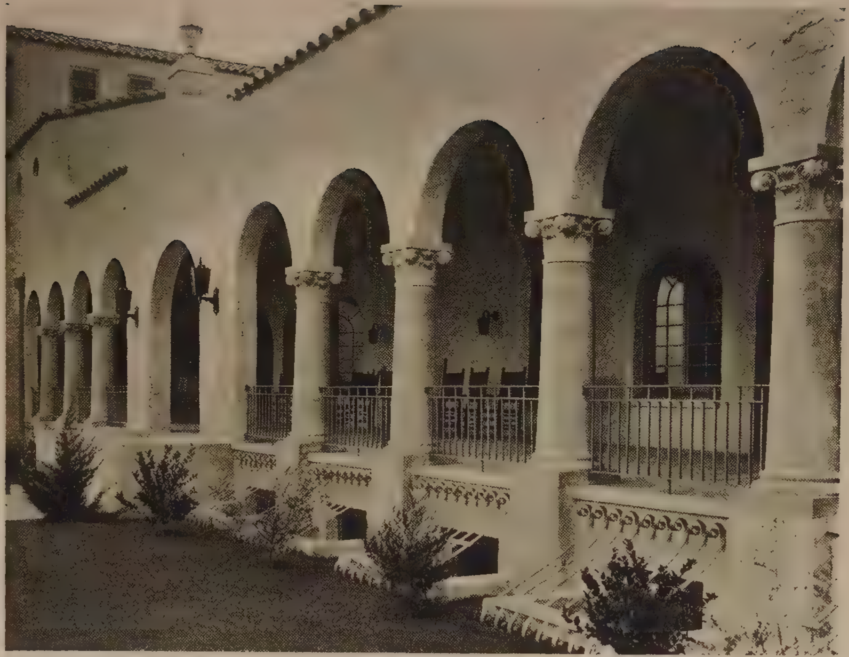
MAIN ENTRANCE.



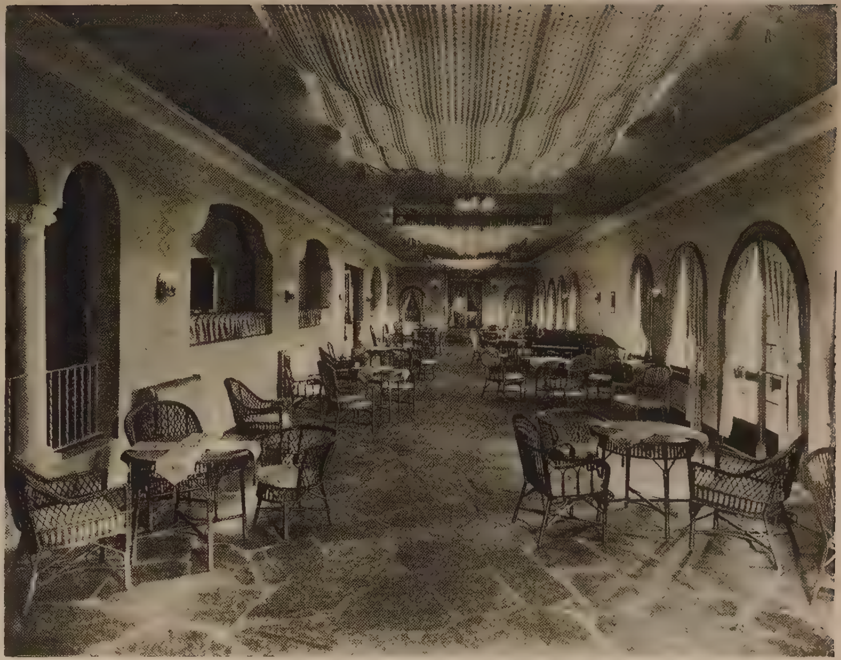
STAIRWAY IN MAIN LOBBY.

Lee L. Wade, Architect.

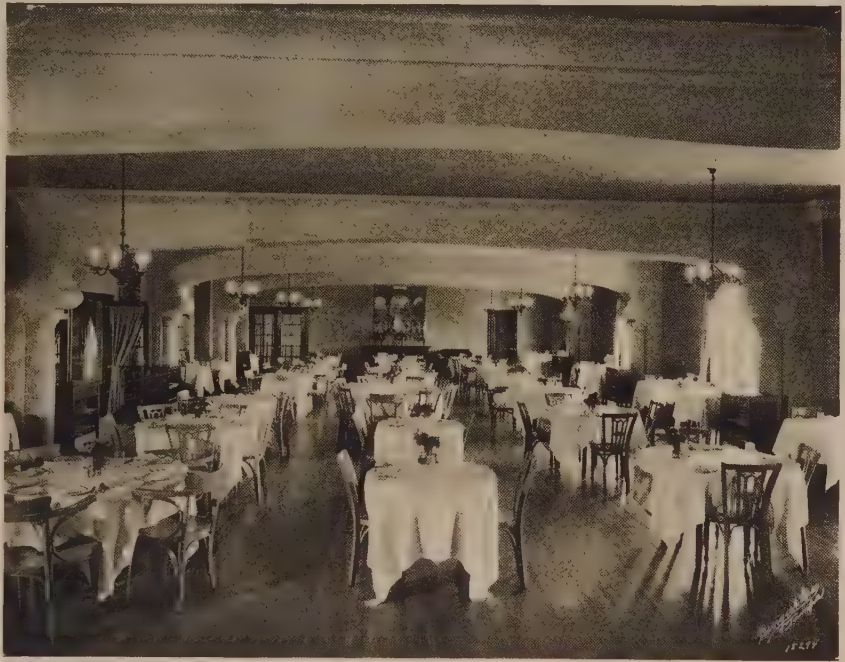
INDIATLANTIC HOTEL, MELBOURNE, FLA.



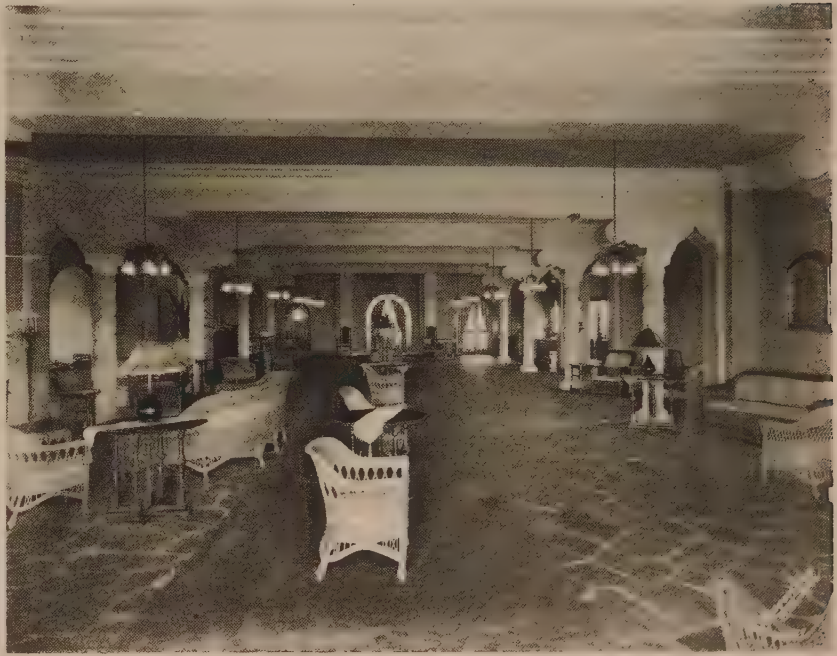
ENTRANCE TO LOGGIA.



SOLARIUM.



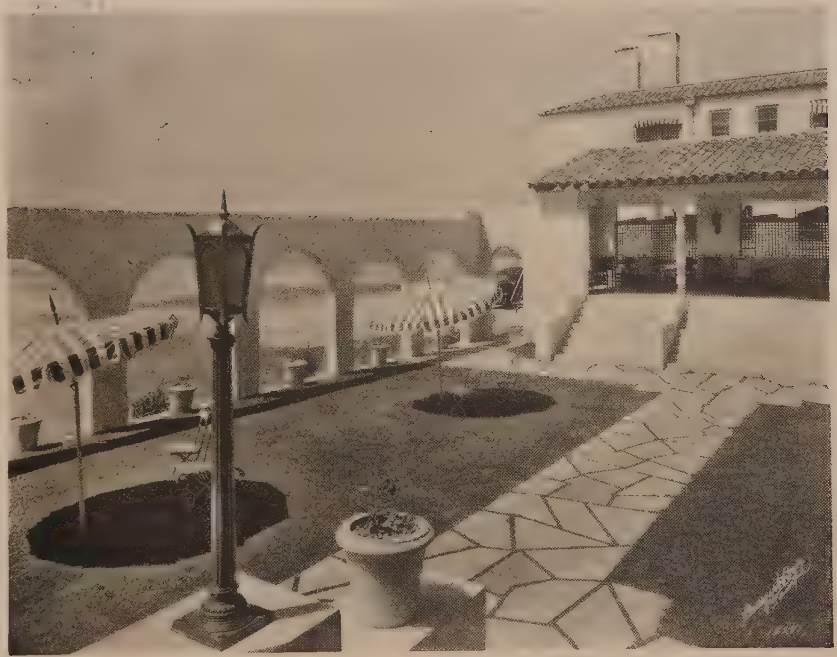
MAIN DINING-ROOM.



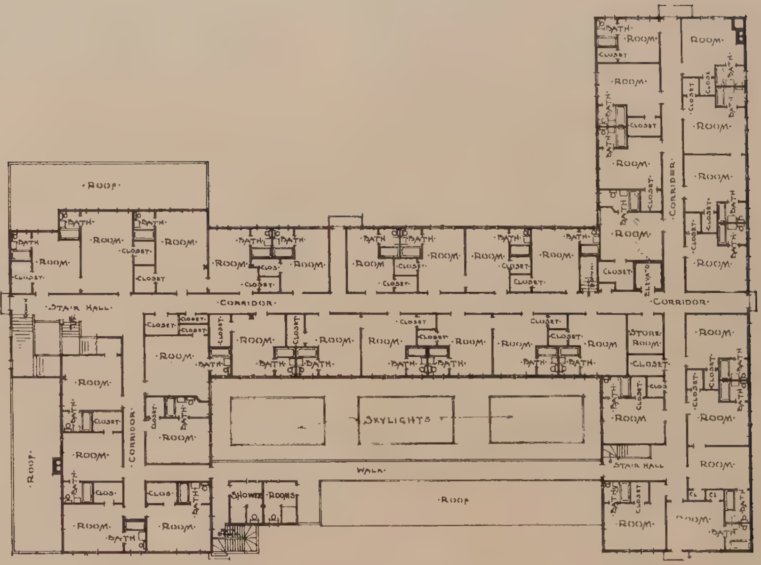
MAIN LOBBY.

Lee L. Wade, Architect.

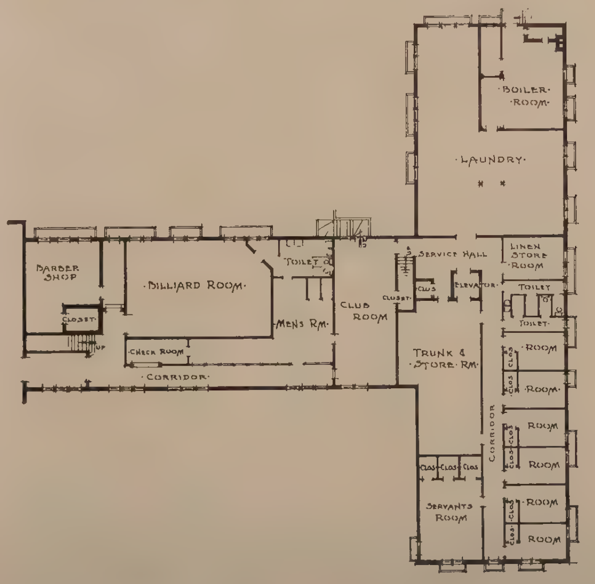
INDIATLANTIC HOTEL, MELBOURNE, FLA.



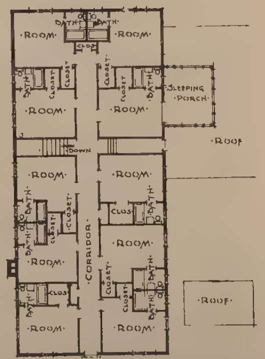
PATIO.



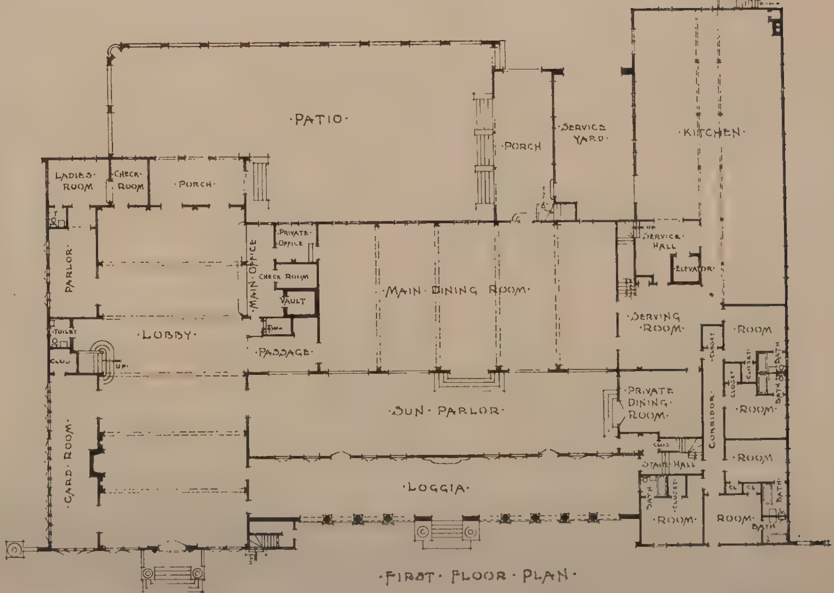
SECOND·FLOOR PLAN



BASEMENT PLAN·



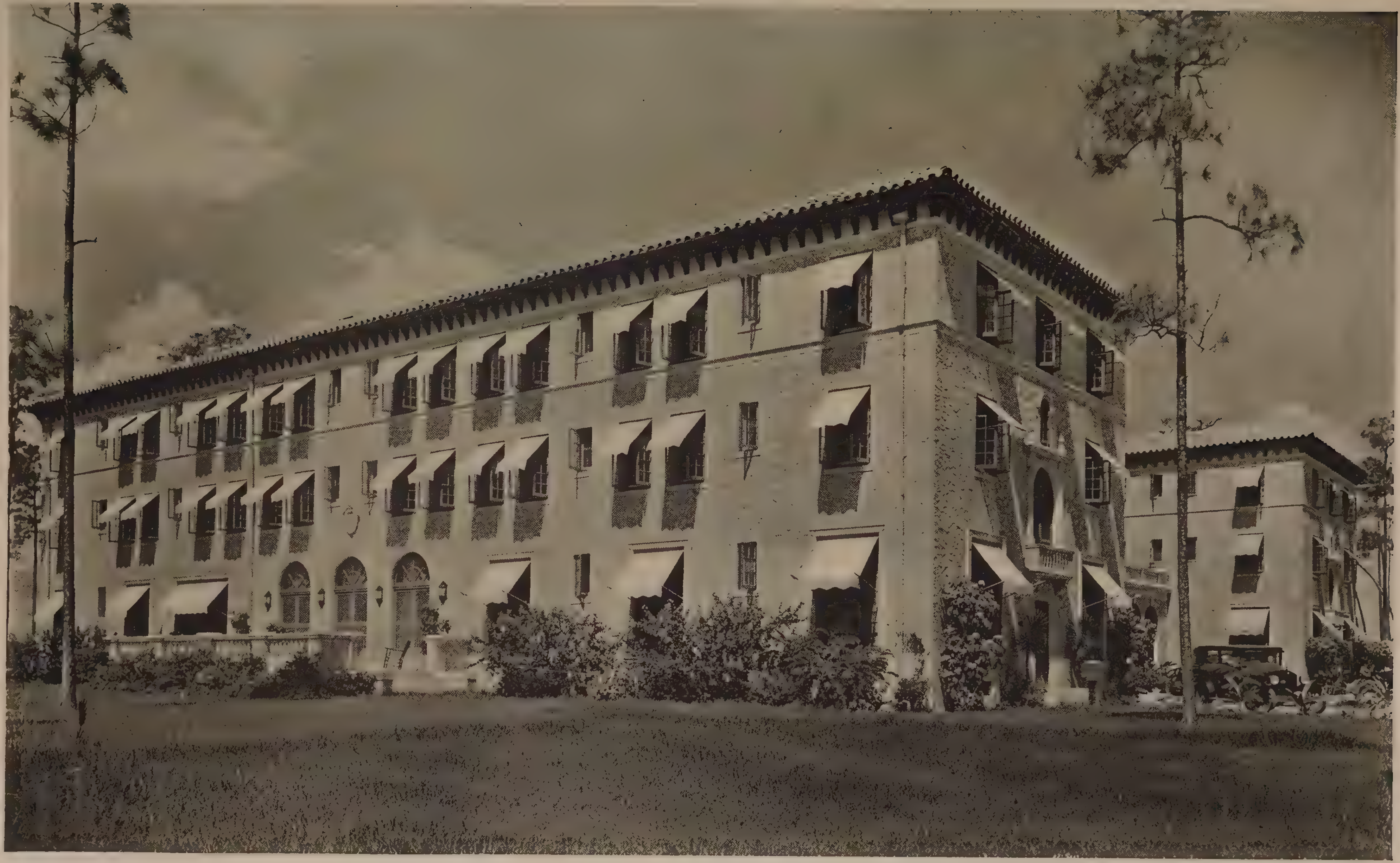
·THIRD FLOOR·PLAN·



·FIRST·FLOOR·PLAN·

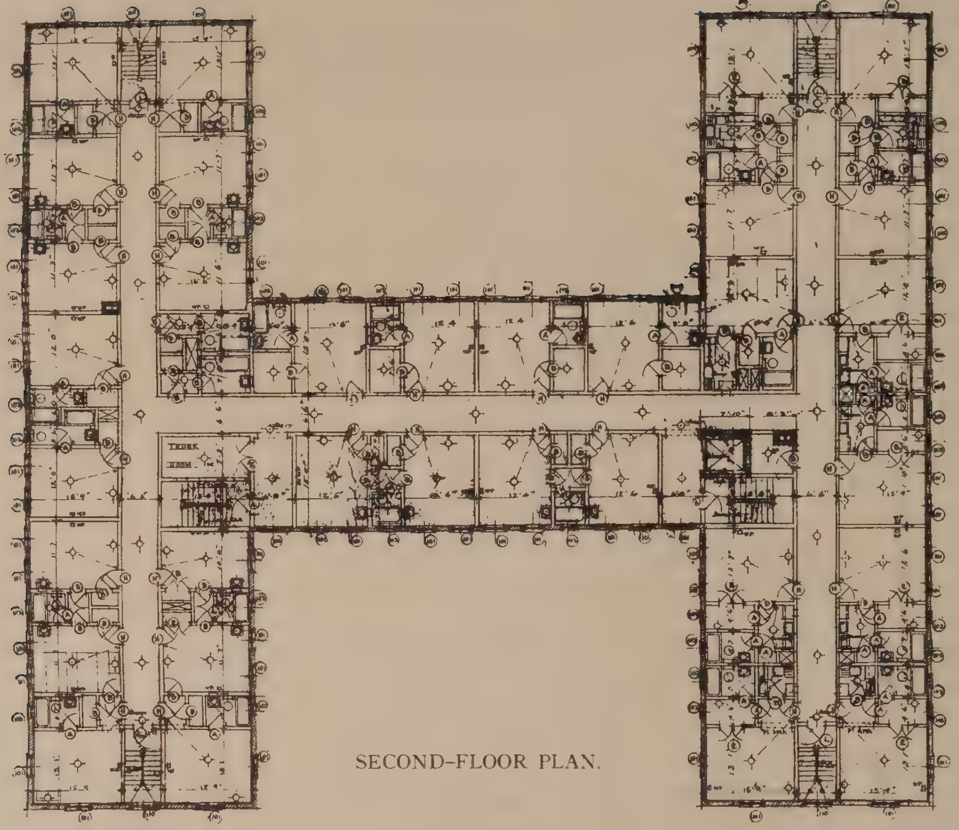
INDIATLANTIC HOTEL, MELBOURNE, FLA.

Lee L. Wade, Architect.

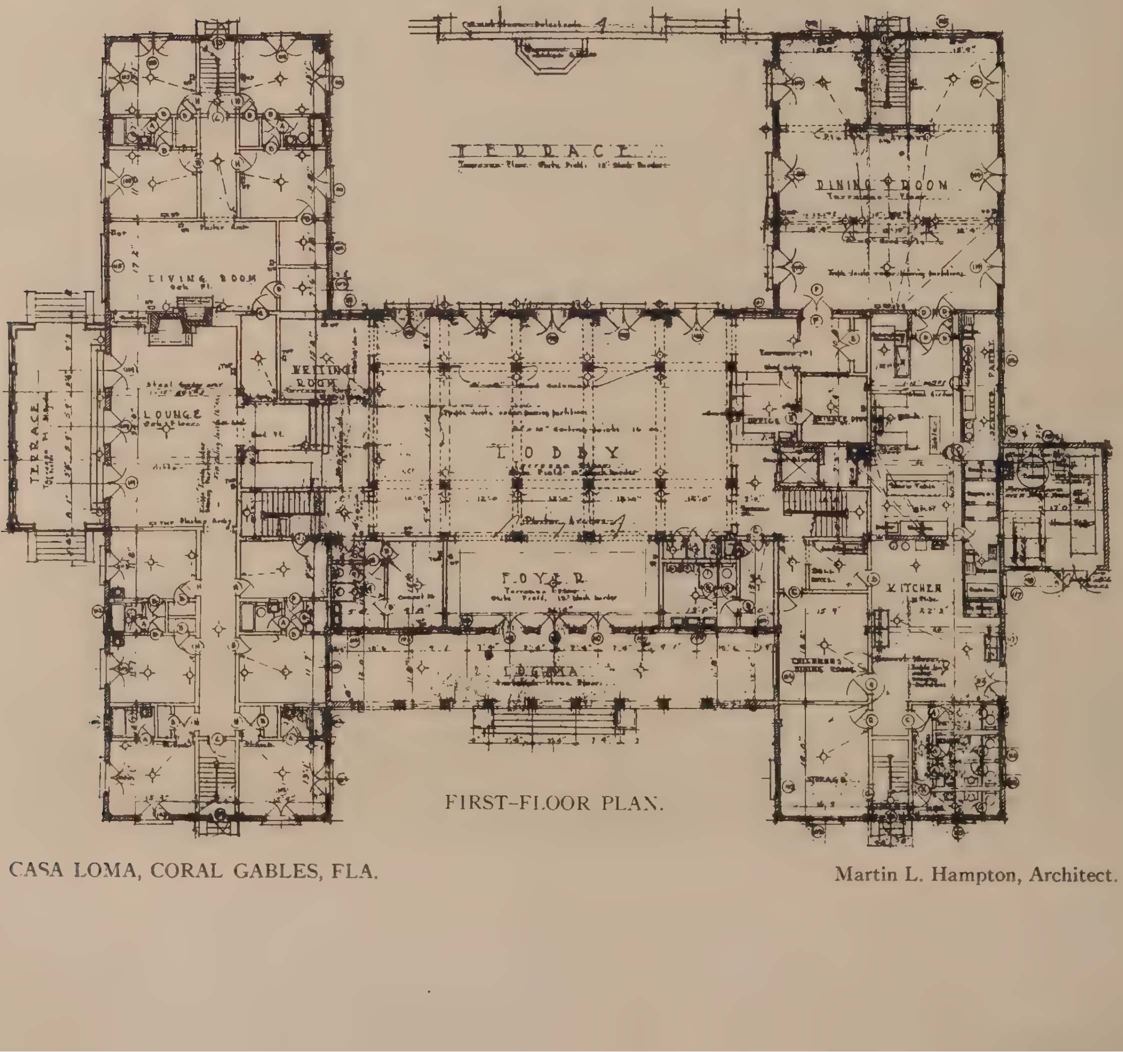


CASA LOMA, CORAL GABLES, FLA.

Martin L. Hampton, Architect.



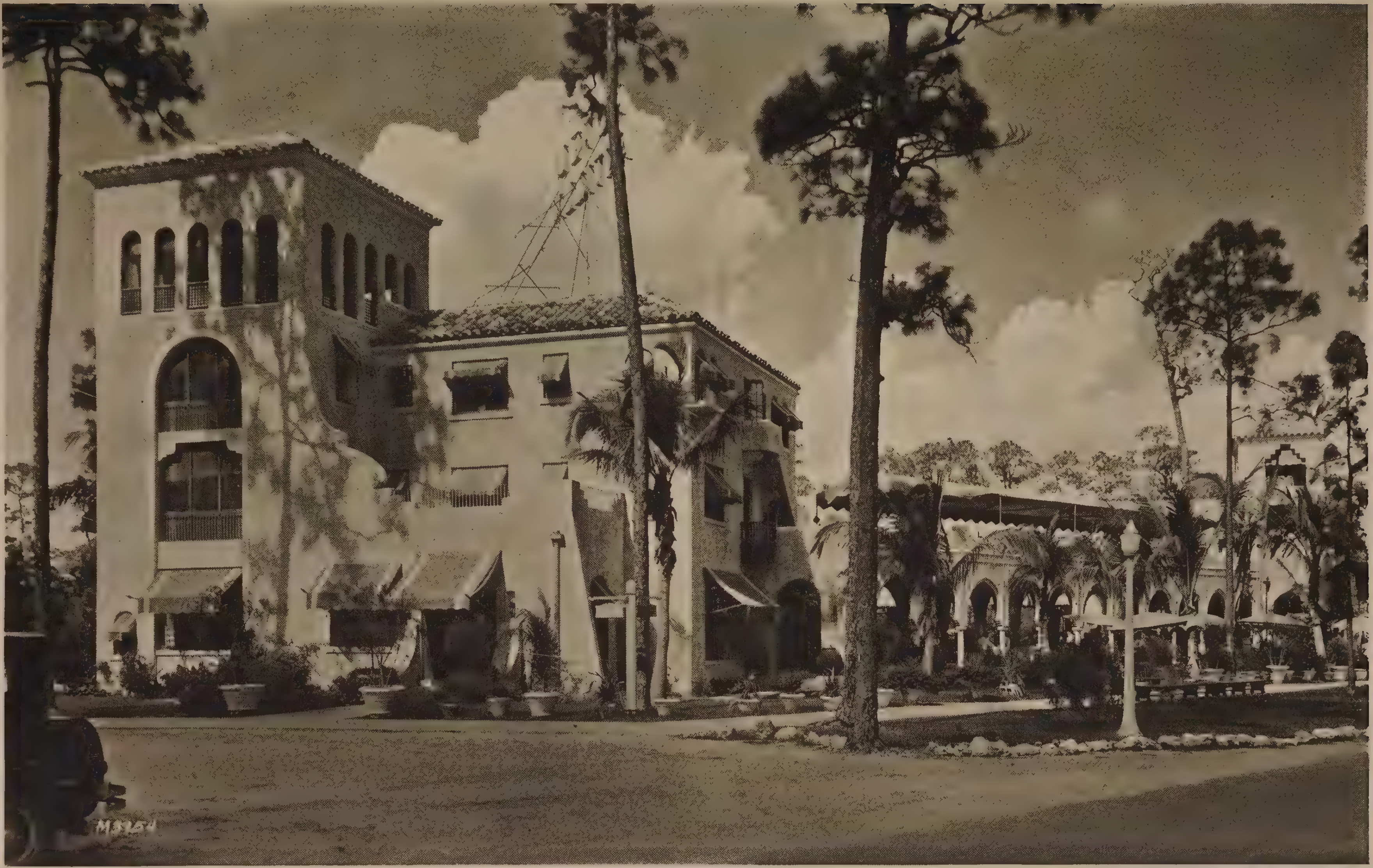
SECOND-FLOOR PLAN.



FIRST-FLOOR PLAN.

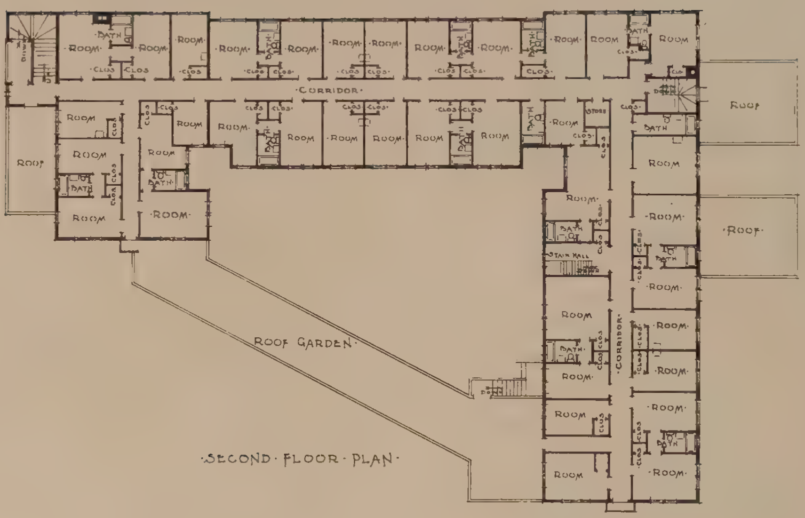
CASA LOMA, CORAL GABLES, FLA.

Martin L. Hampton, Architect.

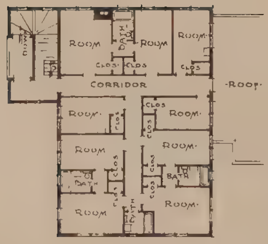


ANTILLA HOTEL, CORAL GABLES, FLA.

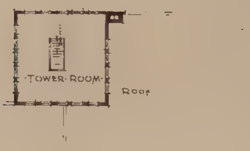
Lee L. Wade, Architect.



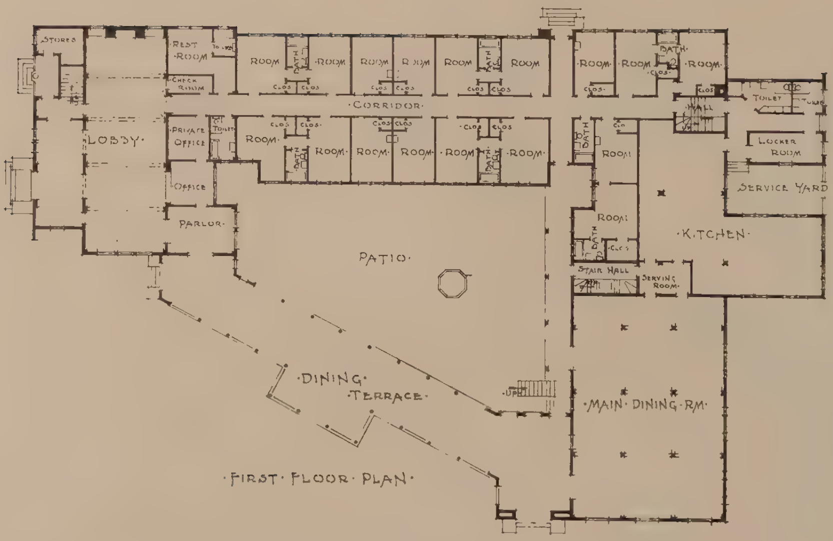
·SECOND· FLOOR· PLAN·



·THIRD· FLOOR PLAN·



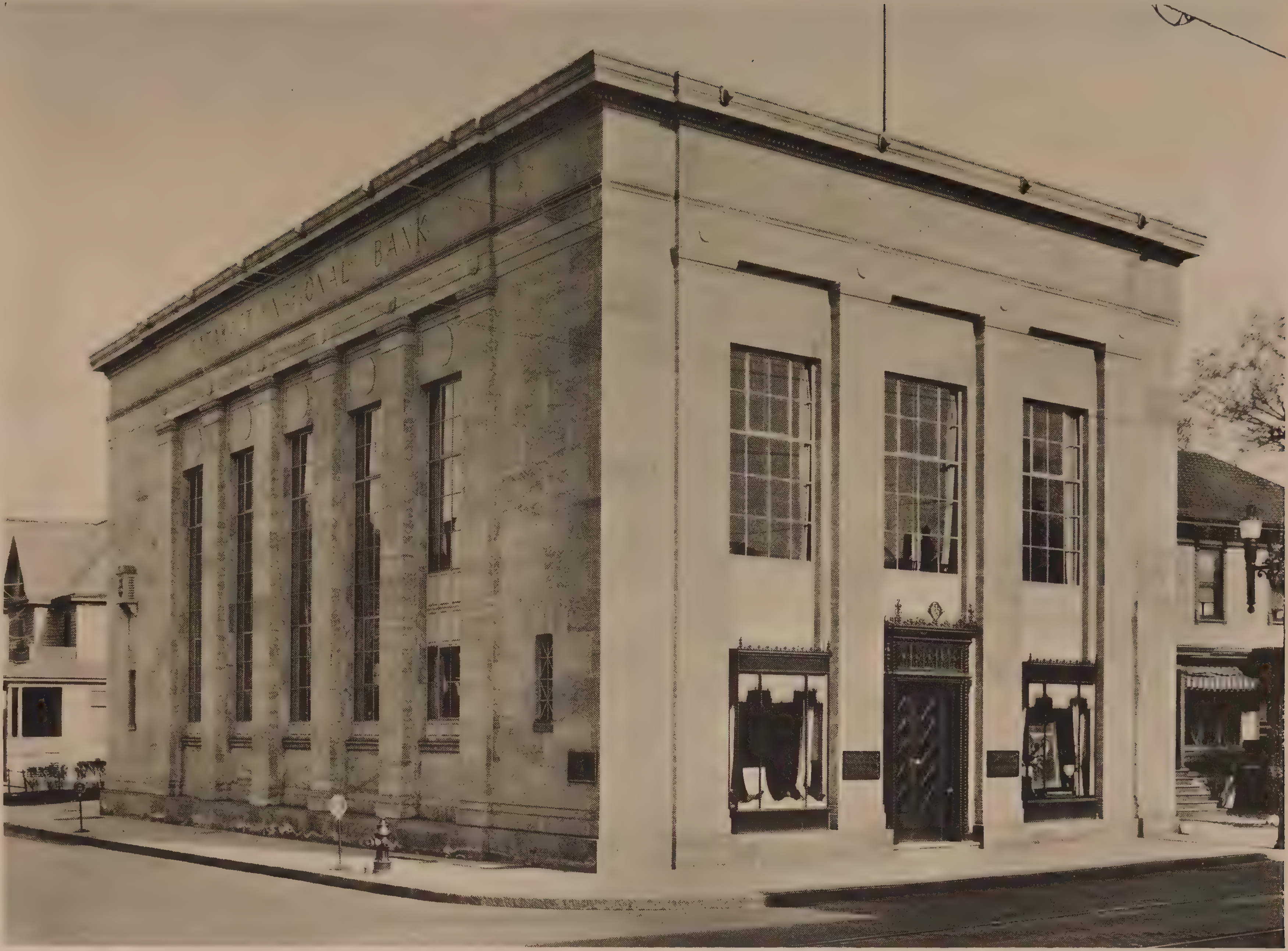
FOURTH FLOOR PLAN·



·FIRST· FLOOR· PLAN·

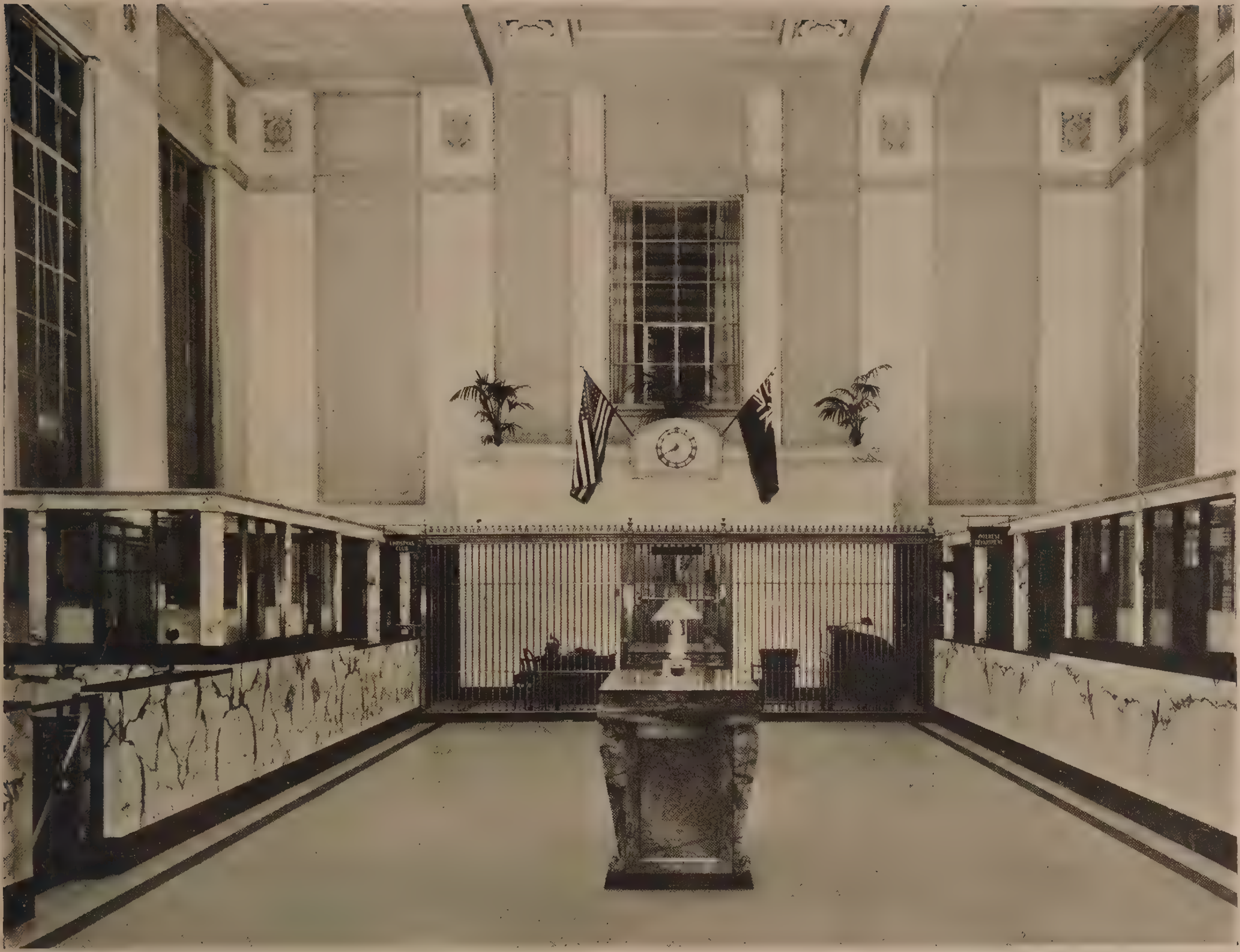
FLOOR PLANS, ANTILLA HOTEL, CORAL GABLES, FLA.

Lee L. Wade, Architect.

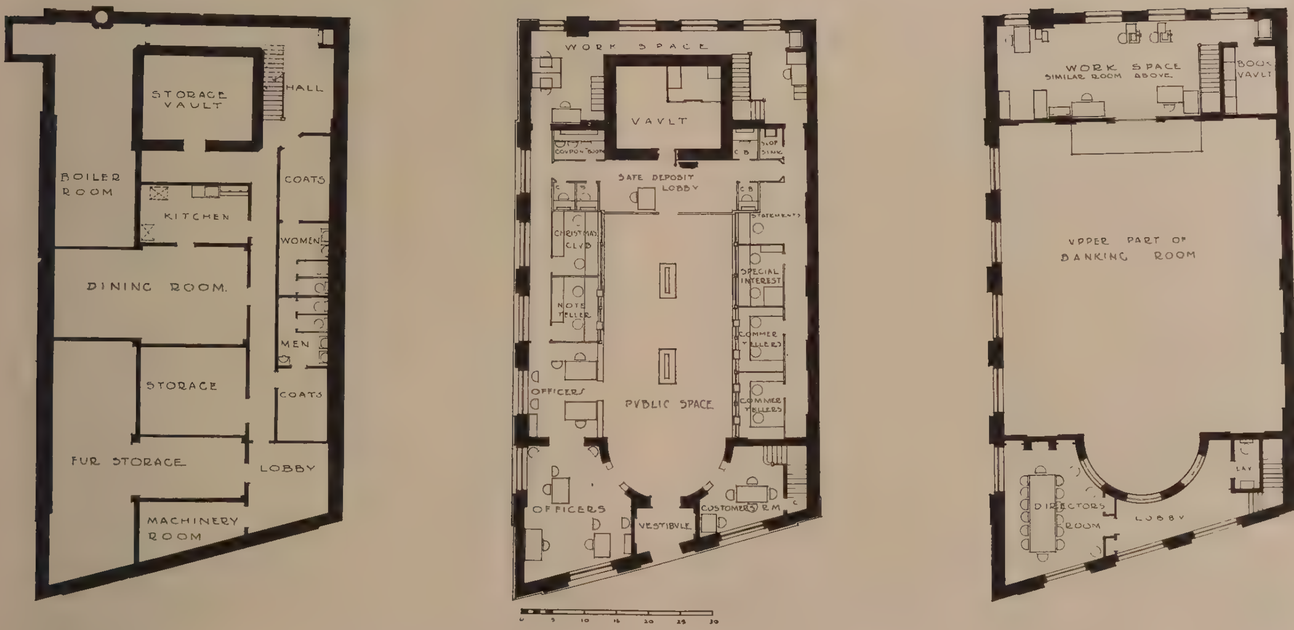


CATARACT NATIONAL BANK BUILDING, NIAGARA FALLS, N. Y.

Simon Larke, Russell Larke, Architects.



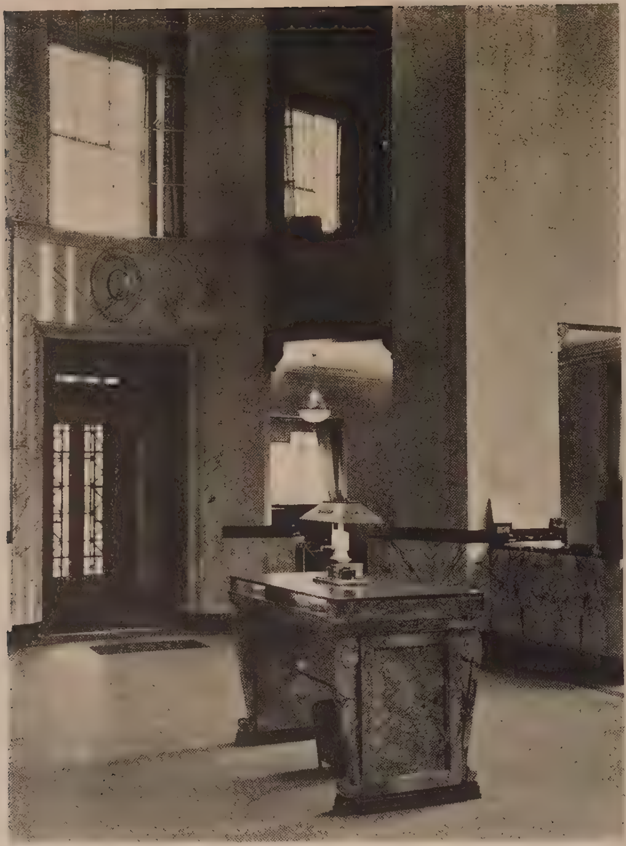
BANKING–ROOM.



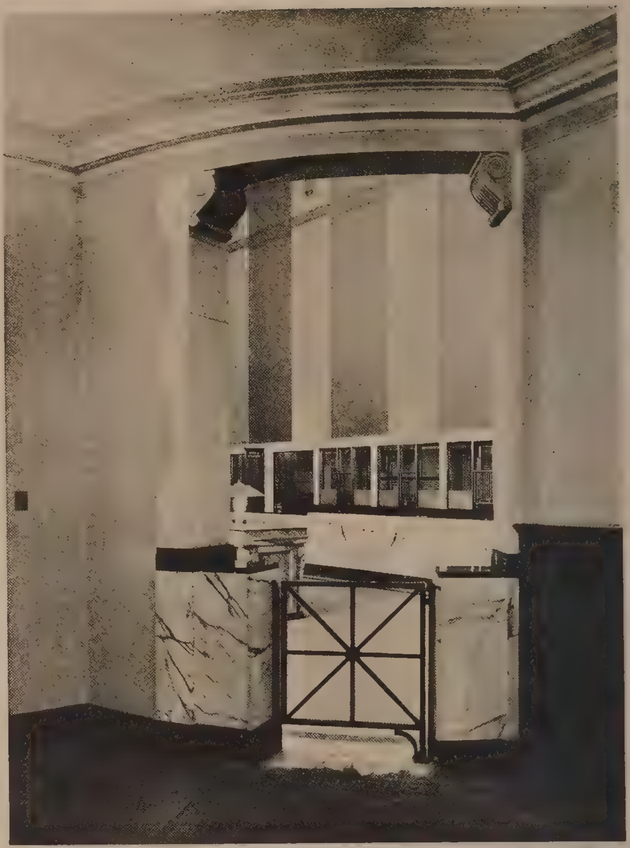
FLOOR PLANS.

Simon Larke, Russell Larke, Architects.

CATARACT NATIONAL BANK BUILDING, NIAGARA FALLS, N. Y.



DETAIL, INTERIOR.



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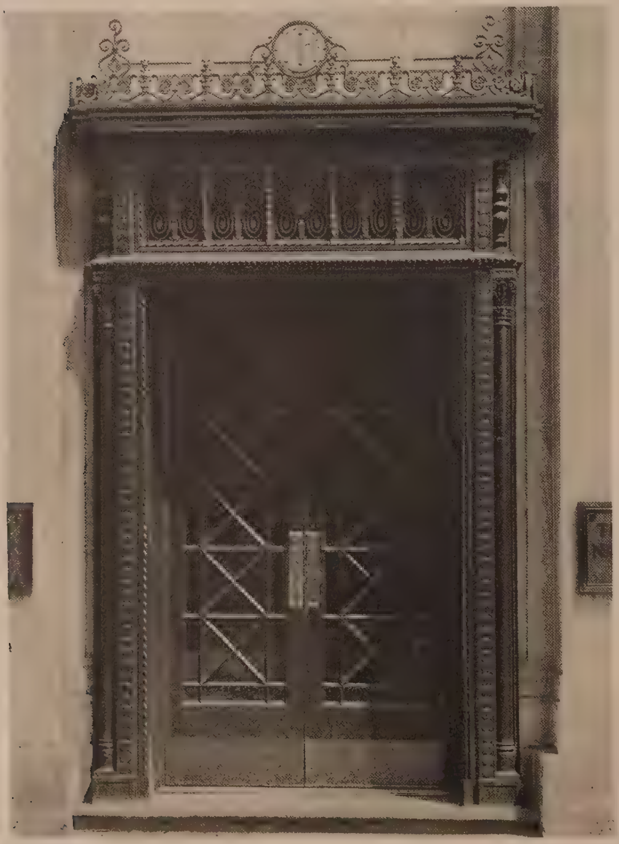
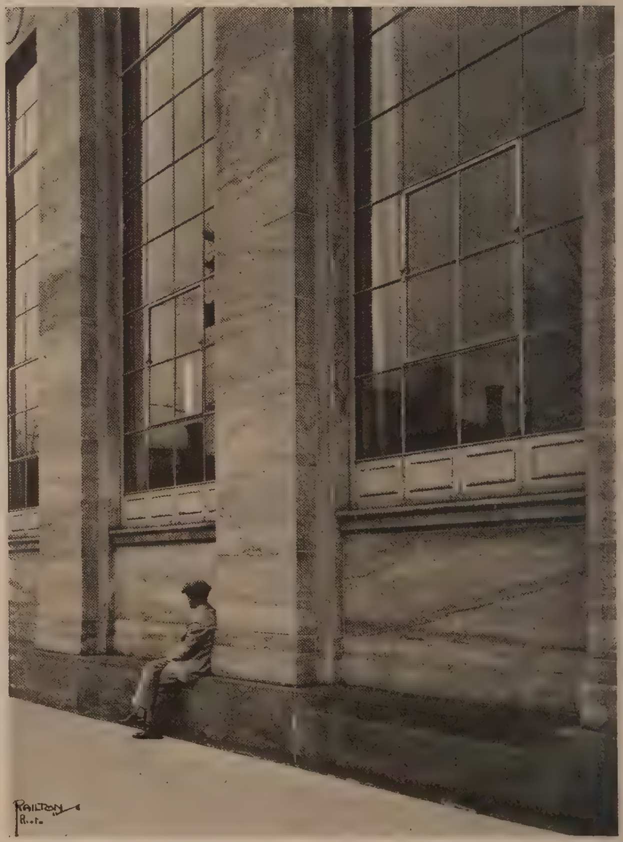


ENTRANCE DETAIL.



EXTERIOR DETAIL.

CATARACT NATIONAL BANK BUILDING, NIAGARA FALLS, N. Y.

Simon Larke, Russell Larke, Architects.

Awnings, an Element of Architectural Design

By H. C. Chambers, A. I. A.

AWNINGS, whether you will or not, are an unmistakable factor in design, and the completed building is subject to awnings just as a growing child is subject to measles. It is, therefore, a good thing to recognize that they constitute a menace to a finished design if the architect does not control them, or that they are an opportunity for the extension of his design if properly considered.

In southern California and Florida there has been a rather interesting recognition of this condition, and more awnings are being used here, with regard to their decorative value, as well as to their practical use.

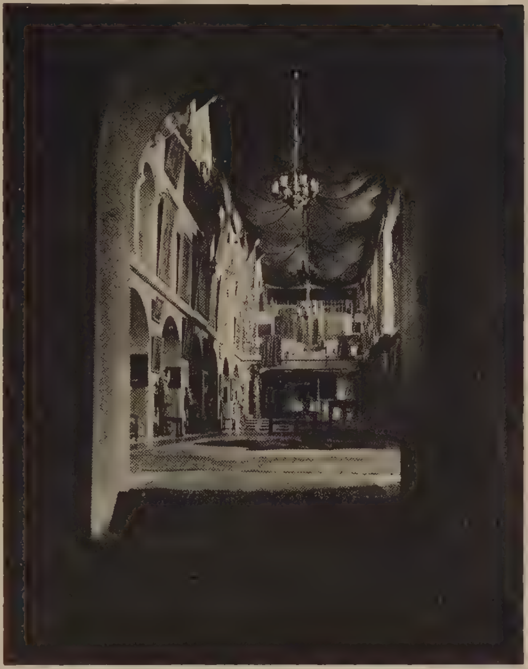
A lifeless building may be given life and warmth and color by their proper use, or a building which has been studied and slaved over with the result of producing a dignified structure of detailed elegance may, by lack of thought in the selection and placing of awnings, be overwhelmed and dowdied.

The problem presented is similar to that of garden planting outdoors, or of draperies and furniture indoors; that is to say, they involve the question of what may happen after your client has taken possession. They are in a sense ephemeral. A garden may be well planted but badly kept up. The first set of awnings may be just right as to color and shape, but it is a good thing to have photographs taken before the second set is purchased by the owner.

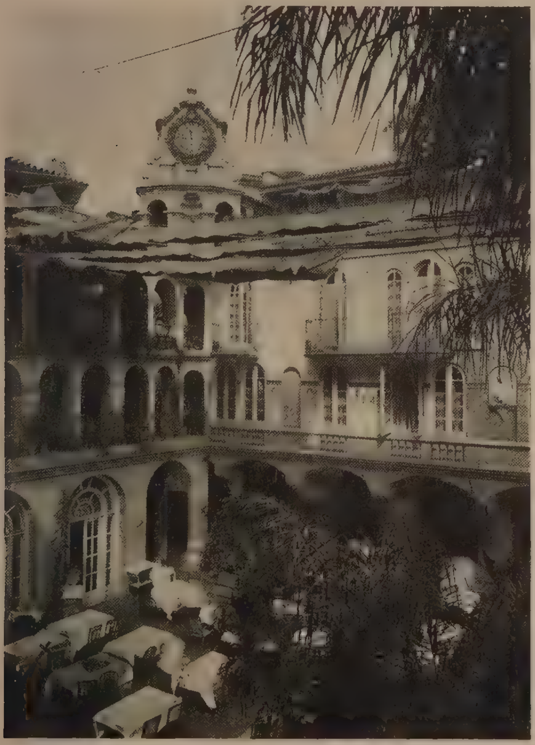
The accompanying photographs do not attempt to show typical uses of awnings, but rather some unusual and possibly suggestive ones. In the design of the courtyard at the Mission Inn, Riverside, the idea of the canopies overhead came first, and the notion of an outdoor dining-room, shaded and protected by them, was a corollary. The canopies are shown in the picture partly extended over the patio. When fully extended they produce on a sunny afternoon a deep and cooling shadow, and at evening they are pulled completely back not to shut out the stars.

An interior view of the picture-gallery in this same inn shows the use of a cloth canopy for the ceiling in a room where an elaborate panelled wooden ceiling was omitted for reasons which every architect will understand.

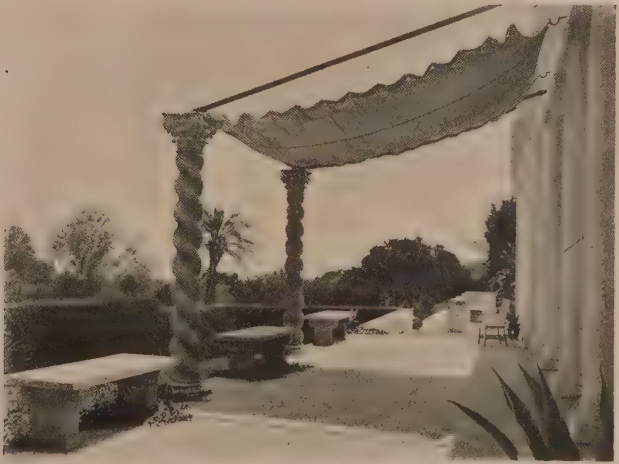
The house by Reginald Johnson at Oak Knoll illustrates the use of awning cloth to keep out the sunlight with-



Picture gallery, Mission Inn, Riverside, Calif. Myron Hunt, Architect.



Patio, Mission Inn, Riverside, Calif. Myron Hunt, Architect.



Villa El Fureidos, Montecito, Santa Barbara, Calif. Bertram G. Goodhue, Architect.

Residence at Oak Knoll, Pasadena, Calif. Reginald D. Johnson, Architect.

out having awnings, and is the first use of exterior drapery of this type in this country, as far as the writer knows. Like all good ideas which are good only in special places, this one has been copied appropriately and inappropriately *ad nauseam* in southern California and in Florida.

Awning cloth is now being produced by painting the cloth, not dyeing it, and even in the devastating sun of the southwest will last and look well for as much as three or four seasons.

Rightly used, they will enhance and humanize most types of buildings, and if the architect does not control them, probably some one else will.

House in Coral Gables, Fla. H. George Fink, Architect.

House in Coral Gables, Fla. John Bullen, Architect.

Book Reviews

FRESH AIR AND VENTILATION. By Dr. C. E. A. Winslow, Professor of Public Health, Yale School of Medicine; Chairman New York State Commission on Ventilation. E. P. Dutton & Co., New York.

Opening with a chapter on "Atmosphere and Human Health," Doctor Winslow has a word to say about the "smoke nuisance," bacteria in the air, offensive odors which corrupt the atmosphere, etc. He then proceeds to his discussion of "What Constitutes Good Ventilation," and presents the revolutionary theory of the New York State Commission that the temperature of the room is the most important factor in hygienic ventilation. Good ventilation, he says, can be secured by the following measures:

(*a*) Place a thermometer in every room, schoolroom, office, and workroom, and note the temperature systematically. (*b*) If the temperature is found to exceed 68 degrees moderate the heat. (*c*) If overheating continues, introduce fresh-air by adjustment of windows, etc. (*d*) In larger offices, schools, factory workrooms, etc., provide a system of window-inlets and gravity exhausts. (*e*) In schools situated so that dirt, smells, noise, etc., make window opening impossible, lay common sense must give way to expert knowledge, and mechanical ventilation must be supplied by the ventilating engineer.

GOOD PRACTICE IN CONSTRUCTION. Part Two. By Philip G. Knobloch. Fifty-two plate pages, 9 by 12 inches, handsomely bound. The Pencil Points Press, Inc., New York.

In the preparation of this, the second part of "Good Practice in Construction," the aim has been to present further useful details in a convenient form for use in the drafting-room. Details that the architect and draftsman are most likely to have occasion to employ in their work have been selected rather than those of a special character. Though many of the plates embody special knowledge, such as the details for theatres, store fronts, log cabins, etc., all are for buildings that are constantly being built in most, if not all, parts of the country and that may well come within the practice of any architect.

The plates in Part Two do not duplicate those in Part One.

HANDBOOK FOR ARCHITECTS AND BUILDERS. Published under the Auspices of the Illinois Society of Architects, Chicago.

This book contains a mine of useful information.

There is a complete list of the licensed architects of Illinois, a list of the society's officers and members, the names of the members of the Chicago Chapter of the A. I. A., and of the Architectural Sketch Club.

The Society's Canons of Ethics, Schedule of Charges, The Architects License Law of the State of Illinois, Rules for Office Practice, Suggestions for Catalogues and Printed Matter, a list of the States requiring architectural registration, Mechanics Lien Law, the Chicago Building Ordinances, etc., are included.

We quote these pertinent words from the editorial that opens the book, by Emery Stanford Hall:

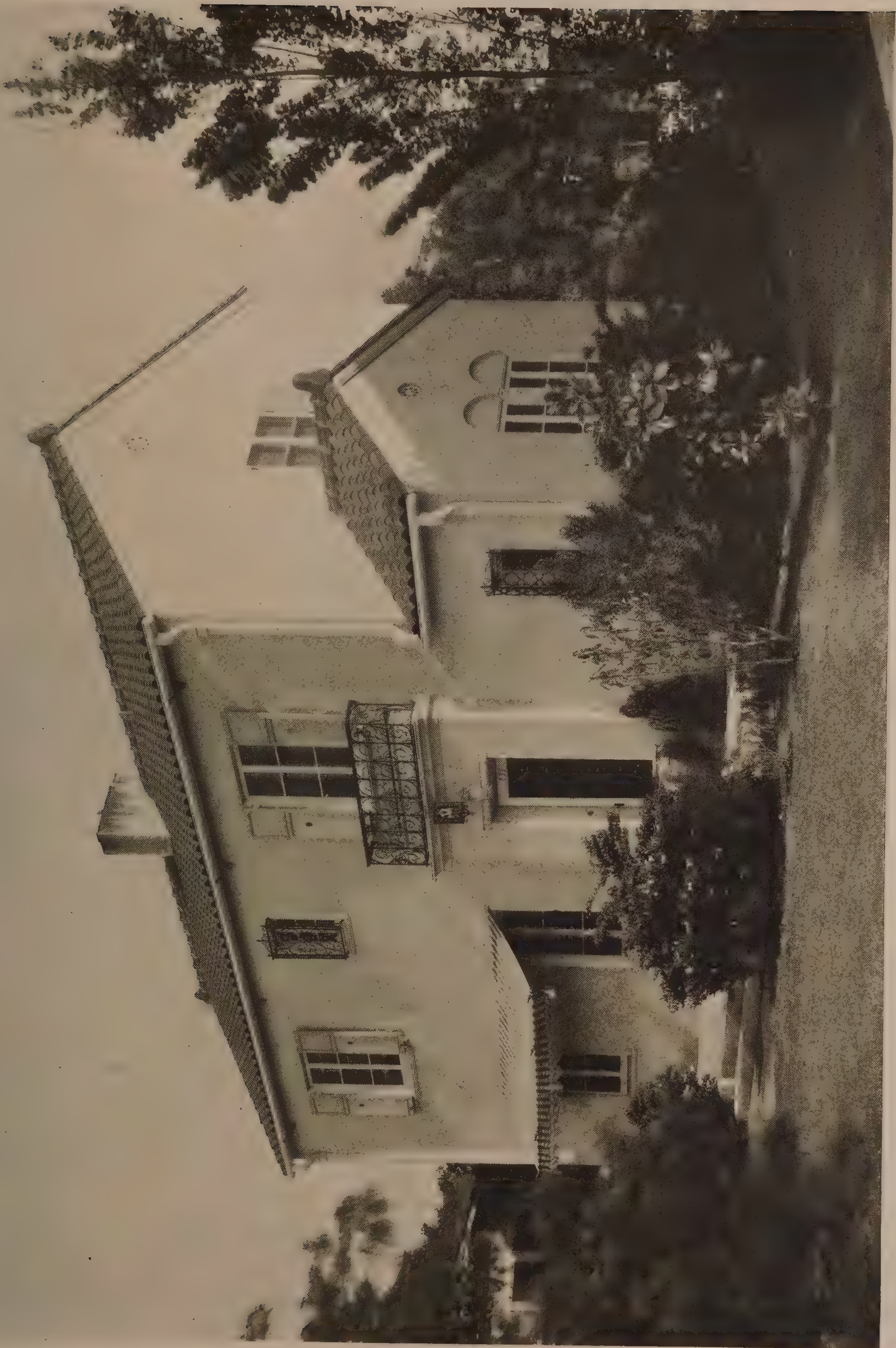
"Where the chief defect in architectural training lies, is not in the school, but in the so-called practical experience which follows the school, that work which corresponds to the doctor's interneship in the hospitals. The young interne is switched to every kind of medical and surgical work, and yet there is complaint from physicians that the internes get more surgical than medical cases, and there are some among the medical profession who insist that after the interne has finished his required work in the hospital he ought to have some experience with a general practitioner of medicine.

"In the architect's office the interne works for wages and in many cases really gets no training at all. Of necessity he is put and kept on the one thing that he could do best when he entered the office. He learns better how to do that thing which he already knew how to do, but little else."

ARCHITECTURAL CONSTRUCTION. Volume Two. An Analysis of the Structural Design of American Buildings. By Walter C. Voss, S. B., Consulting Engineer, Boston, Mass., formerly Head of Department of Architectural Construction, Wentworth Institute, Boston, Mass., and Edward A. Vance, S. B., Structural Engineer, Cambridge, Mass., formerly Instructor of Mechanics and Structural Design, Wentworth Institute, Boston, Mass. Book One. Wood Construction. John Wiley & Sons, Inc., New York.

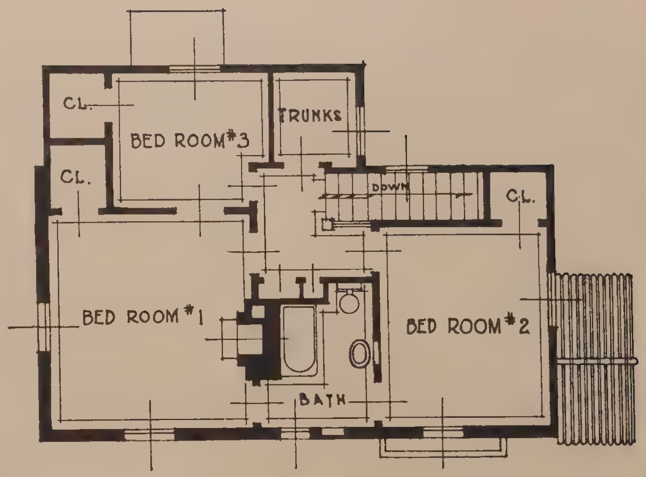
The Contents include the Design of Beams, Simple, Compound Beams, Wood Only, Wood and Steel, Design of Floor Construction, Design of Roof Construction, Design of Columns, Miscellaneous Framing.

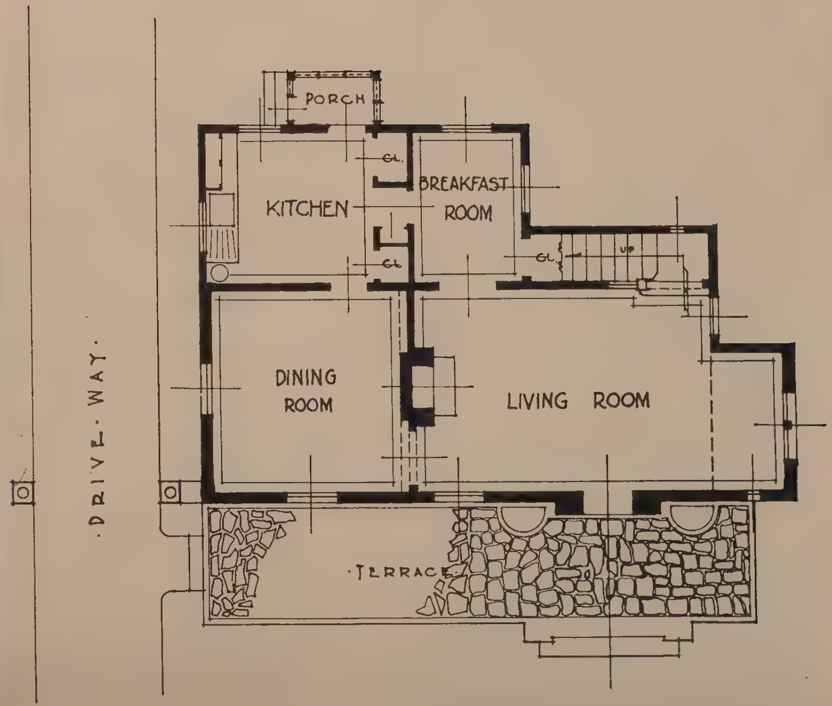
A book of practical usefulness both in text and in the numerous illustrations.



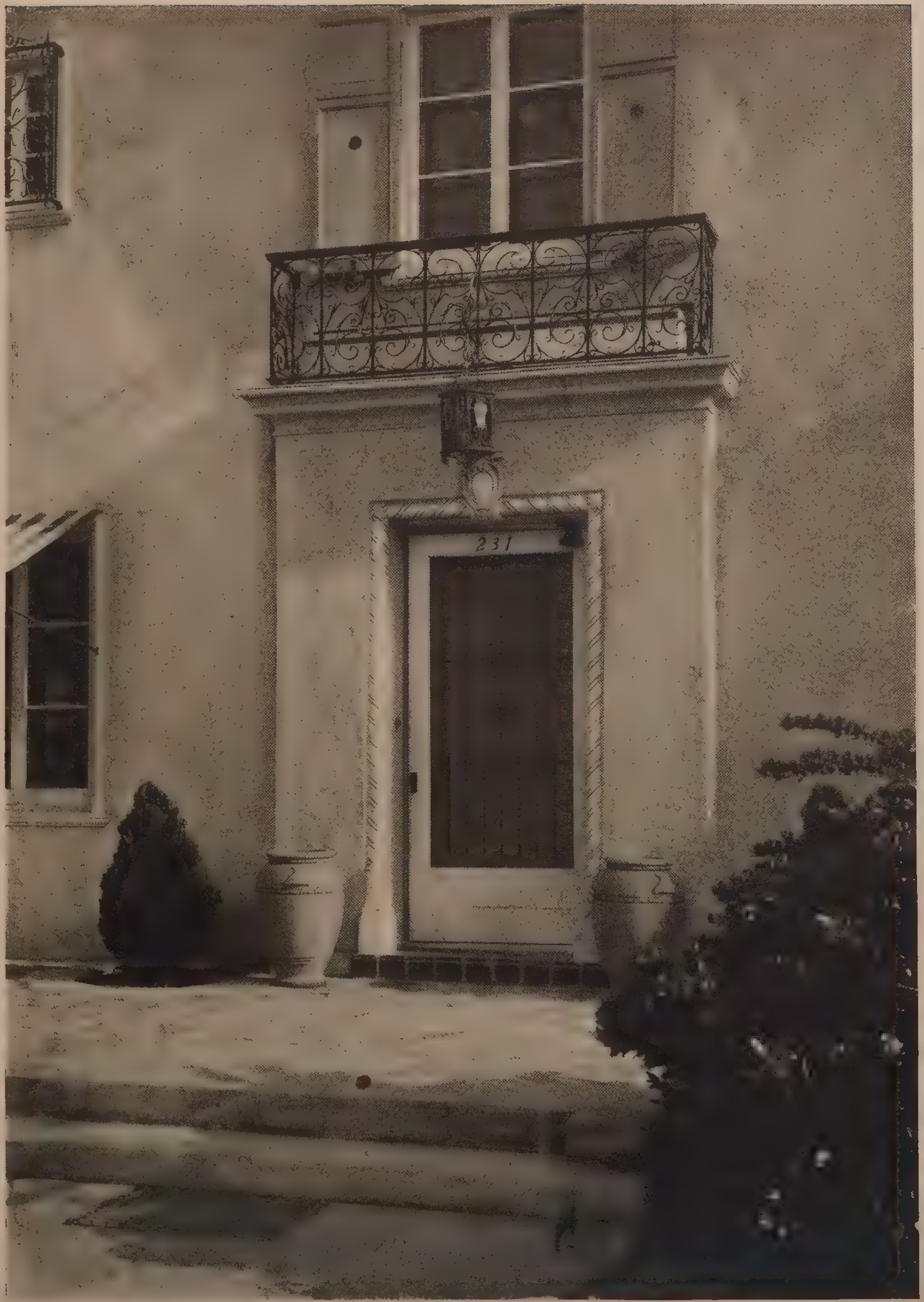
HOUSE, C. W. ADAMS, SAN ANTONIO, TEXAS.

Adams & Adams, Architects.

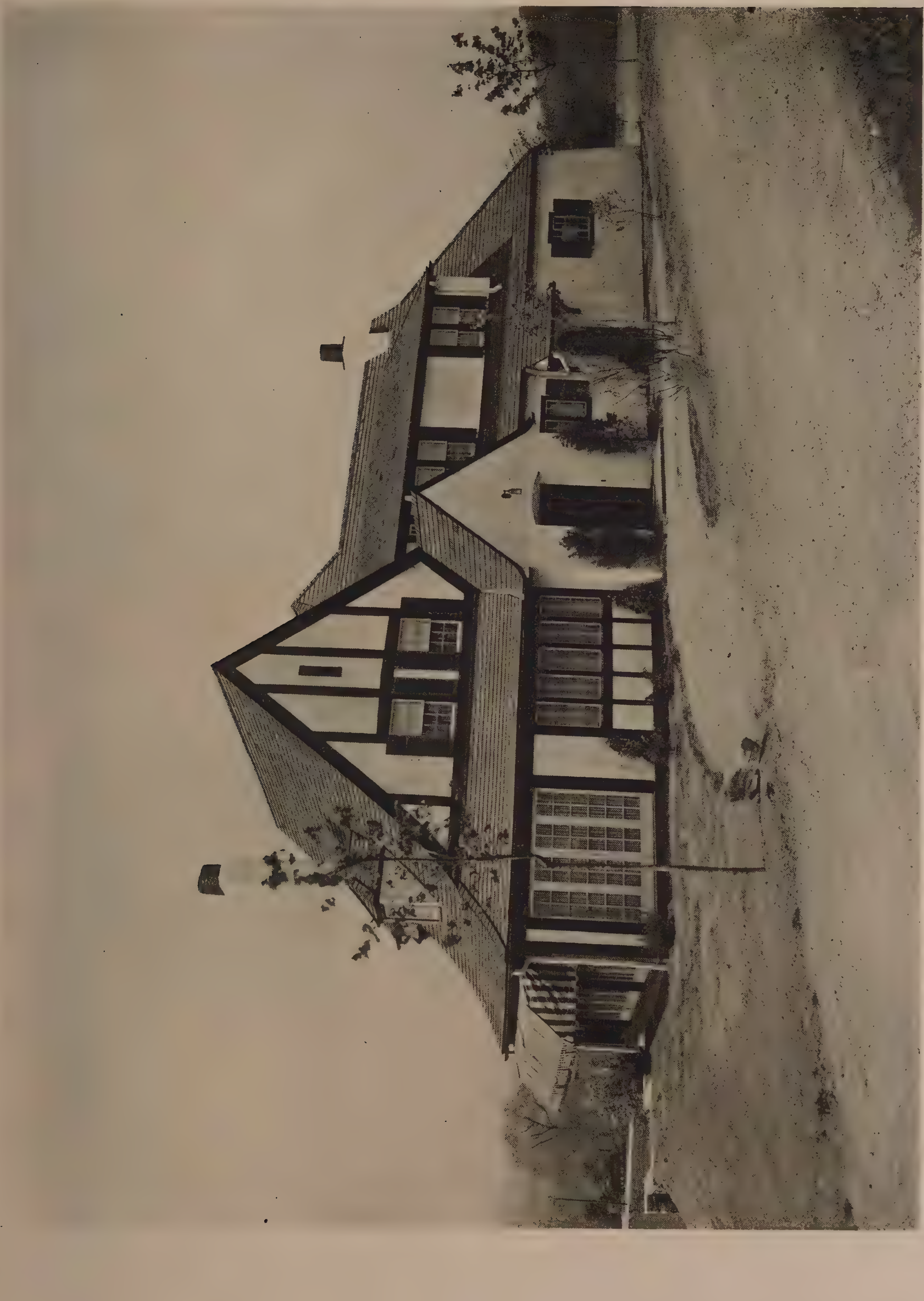




Adams & Adams, Architects.

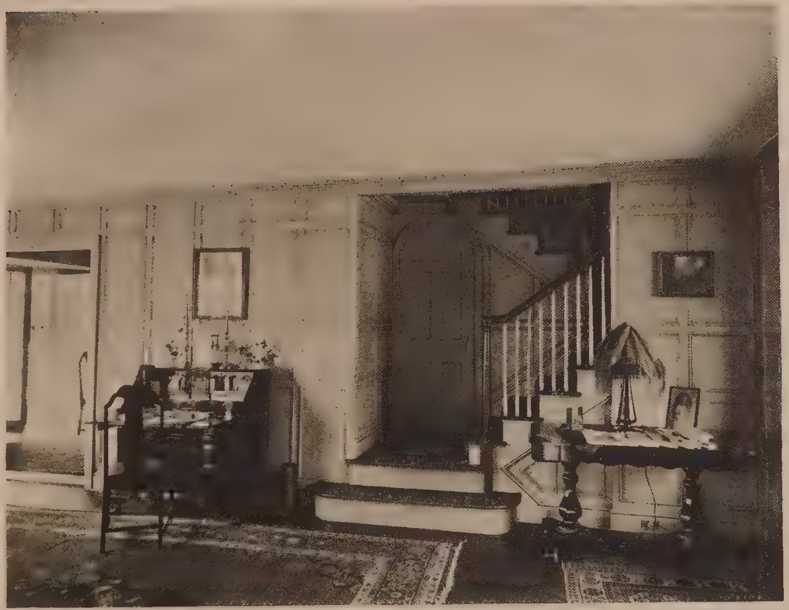


FRONT ENTRANCE, HOUSE, C. W. ADAMS, SAN ANTONIO, TEXAS.

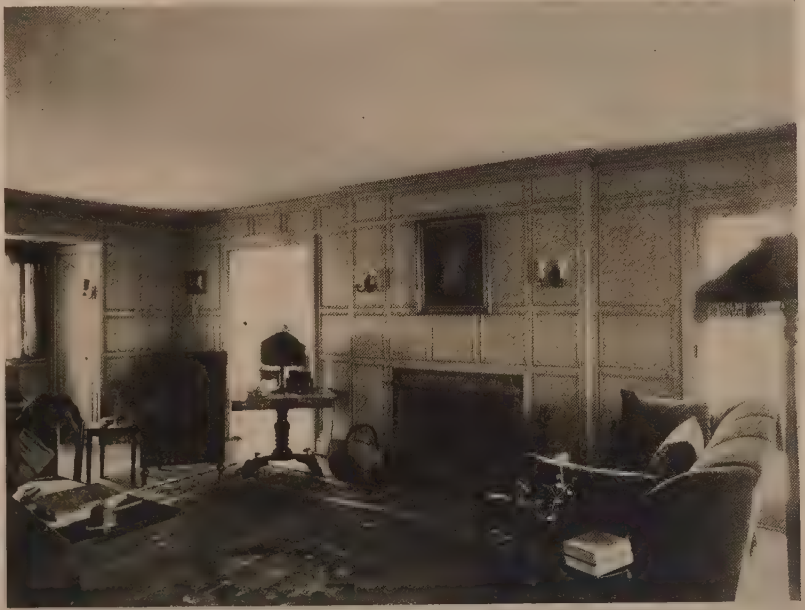


RESIDENCE, STANLEY C. WILLEY, ARDSLEY-ON-HUDSON, N. Y.

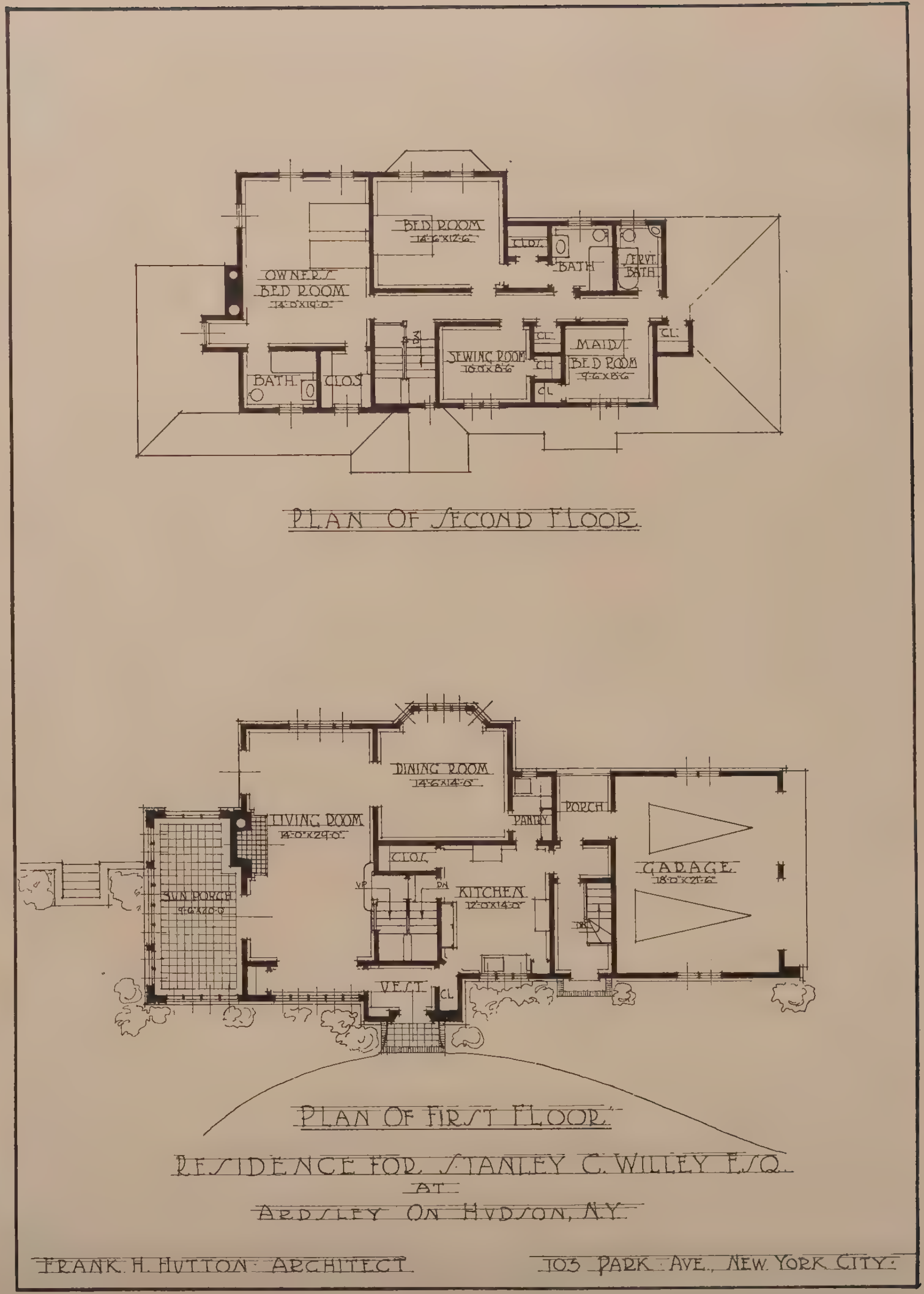
Frank H. Hutton, Architect.



LIVING-ROOM.

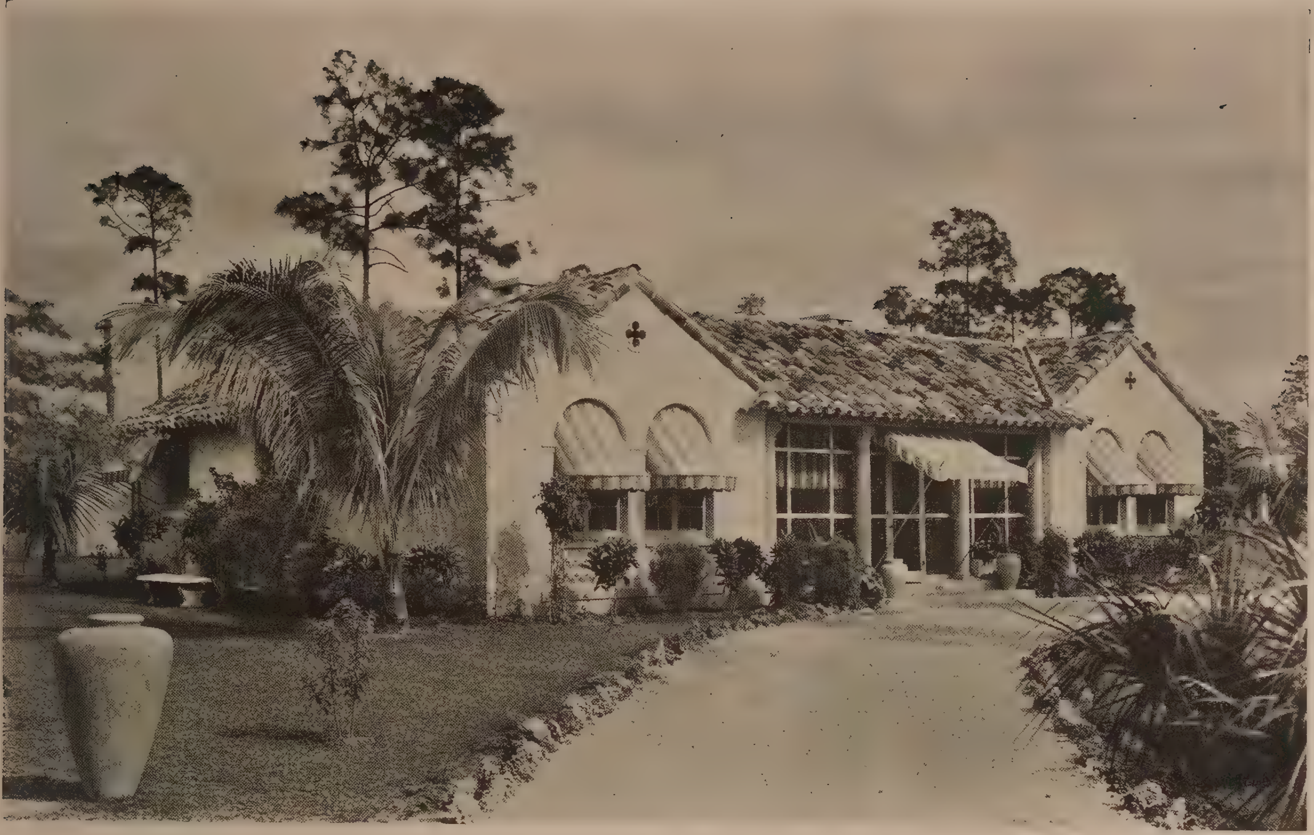


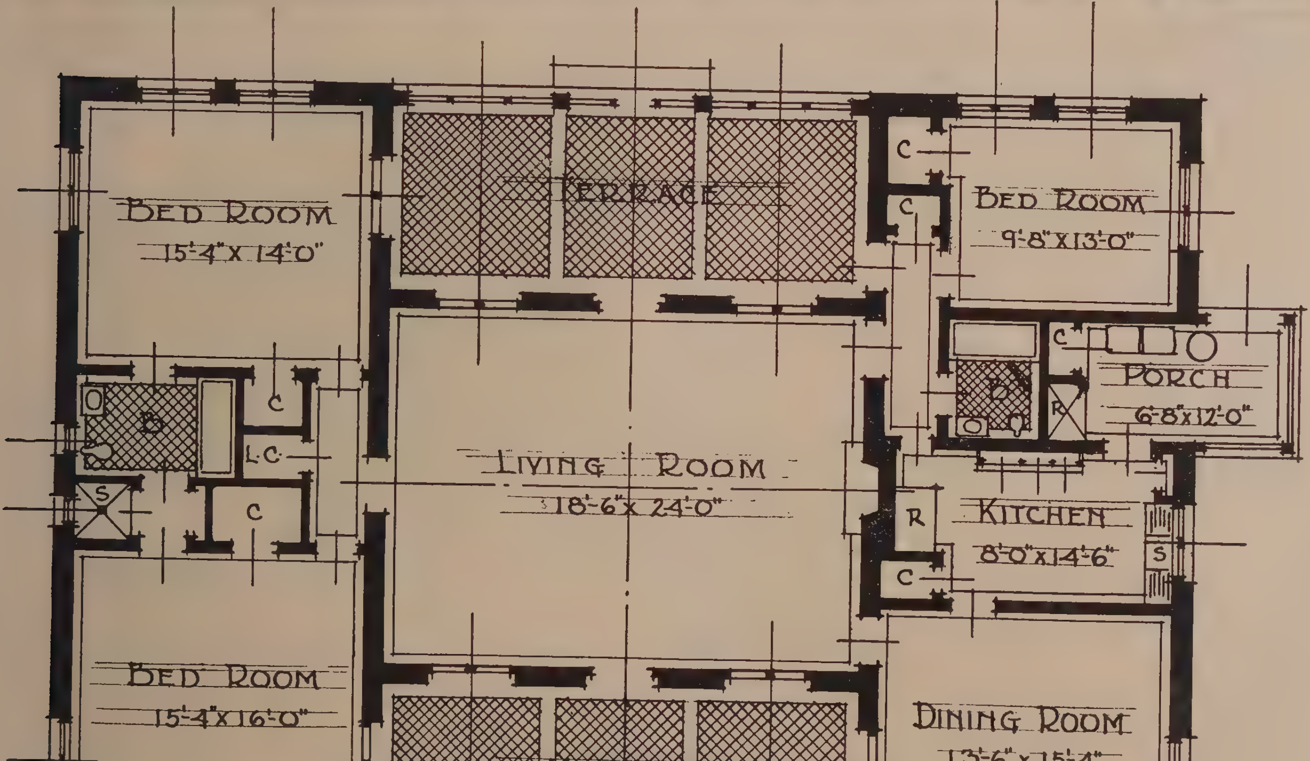
LIVING-ROOM,



Frank H. Hutton, Architect.

RESIDENCE, STANLEY C, WILLEY, ARDSLEY-ON-HUDSON, N. Y.





RESIDENCE, F. A. BARNABY, CORAL GABLES, FLA.

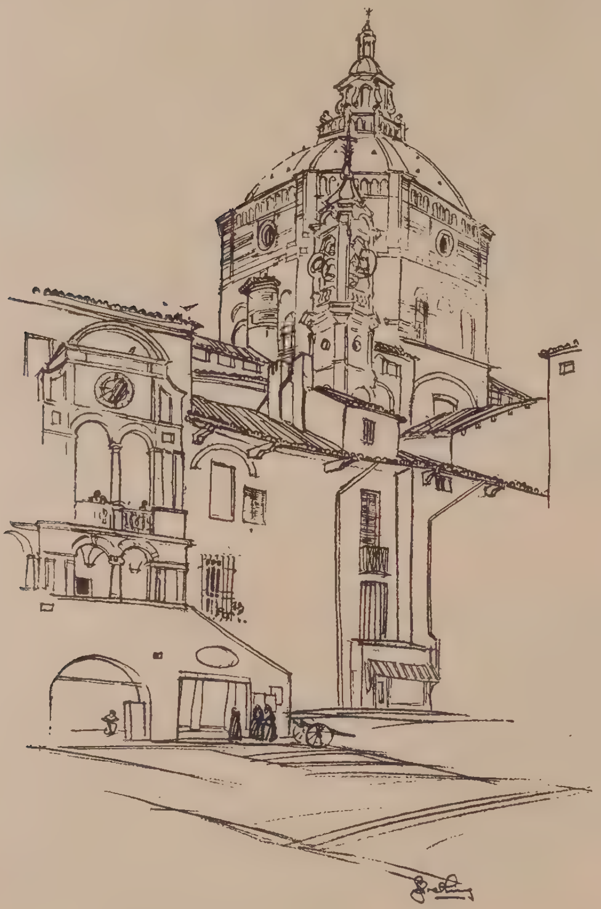
Laurence M. Loeb, Architect.

Sketching in Northern Italy

William P. Spratling

Illustrated by the Author

THE average traveller through northern Italy is almost sure, in his zealous searching for historical matter or sifting of architectural facts, to lose the sense of rich pictorial quality that the small towns have to offer. Not that the same thing is not true also of the south and even of the larger centres. Here in the small towns, though, the thing is apt to elude. Too often, when the space of time is limited and the ground to be covered is carefully charted and annotated, one is apt to lose sight of the more important qualities of the setting—to forget the blueness of the sky, the genialness of the life in the streets, the mellow texture of walls, and, architecturally, the manner in which the buildings have been allowed to grow up, their masses fitting amiably one into the other and the whole pervaded by that sense of leisureliness which we of the New World find so enviably foreign.



Pavia, The Duomo.

The thing must be seen at a glance or not at all. Perhaps this is more true for the composer of pictures than for any one else. The one who sketches must render himself soft and responsive to the subtle spirit of things to be found in an Old World street or group of buildings before he can ever hope to become expressive of what they do to charm him. He must be pliant and impressionable in the mould of his surroundings with a mind sensitively adjusting itself not only to colors and shapes but to all the other things of the senses, to movement, to the smells from a bake shop—in short, to all things that reach one's inner consciousness and that render places articulate where people dwell.

Pavia is not classic. To one who is looking for picture material, for the quiet beauty of time-softened and lived-in buildings, here will be found those qualities in which he can steep himself. Possibly the spirit of the place is still Romanesque and still imbued with the spirit of the twelfth century. There are many churches, apparently all old and full of curious and dramatic things. The façade of Sant Michele is rich in this quality.

The great tower of the Duomo quietly dominates the town. Below, in the square, there is an abundance of life, with busily gleaning pigeons at one's feet. The body of the church itself is fairly hidden, and one sees ordinarily only the accumulation of shapes about the great octagon of the tower and the crowning of the vast dome with a delicately balustraded cupola of Renaissance times. A Renaissance

Mantua, The Duomo.

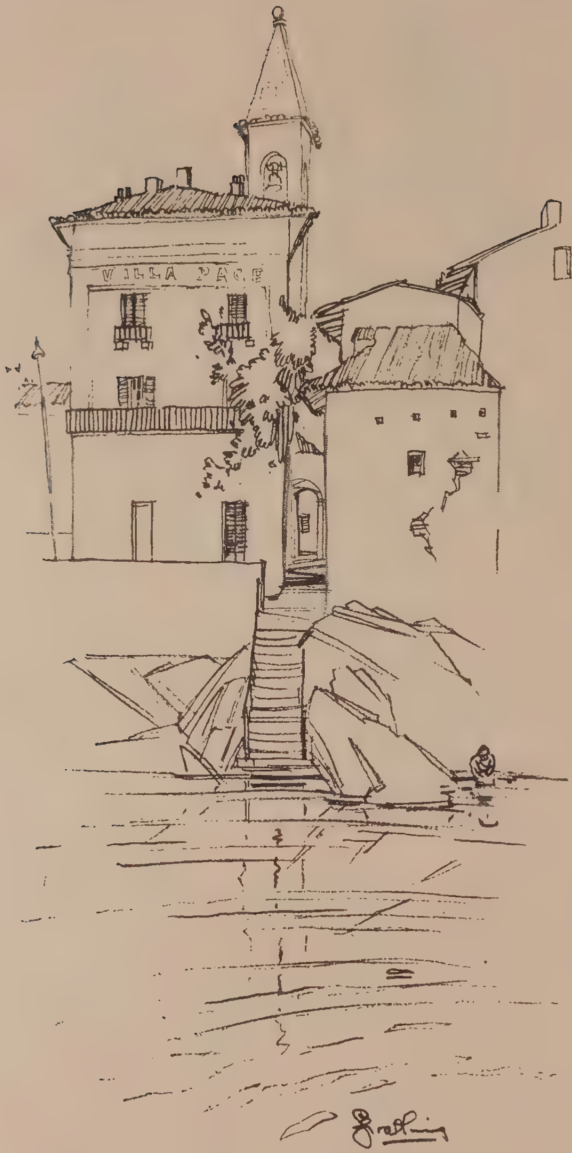
Pavia, Chiesa.

campanile in the foreground, lively and delicious in detail, of sixteenth-century workmanship, looks almost impertinent against the masses of ancient crumbling brickwork.

Pavia, The Certosa.

The famous Certosa, some four or five miles from Pavia, is most pleasantly approached in a carriage or "fiacre," which process allows just sufficient leisure for contemplation of this shrine, which is set at the extremity of an avenue of towering poplars. One journeys to the jewel-like building in order to marvel at precious things in old marble, alabaster, and semi-precious stones and to ruminate on the perfection of

Pavia, The Bridge.



Lago Maggiore, Isola Bella.

monastic life of the sixteenth century. Incidentally, one pauses to sketch, feeling a little hopeless after having absorbed the splendor contained therein.

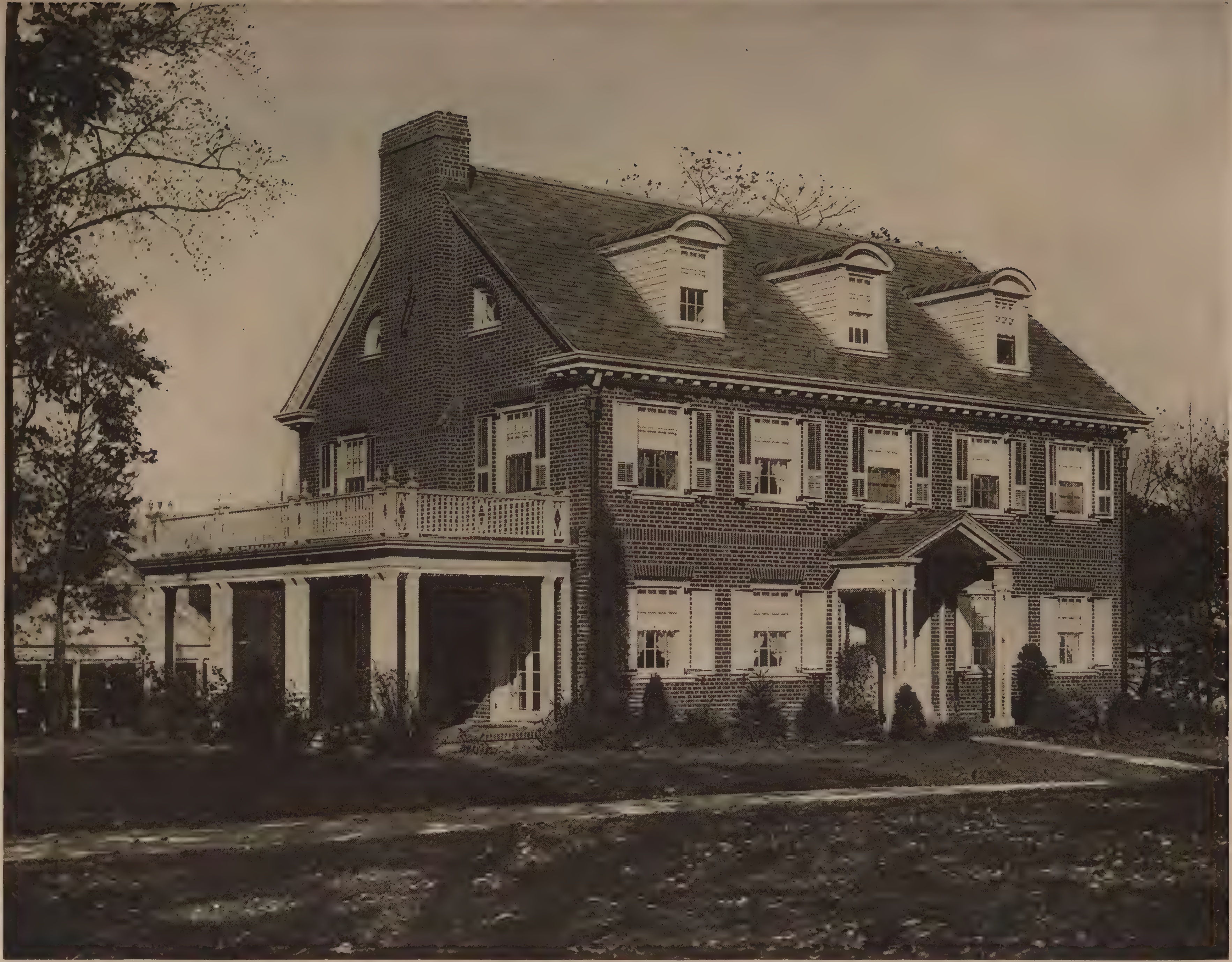
There are many towns in the province of Lombardy and near-by which, after one has become sated with the noise and hurry and the tourist crowds of large centres like Milan, come as a blessed relief. Here, let us say, in Mantua or Cremona, is the feeling that there is, after all, no particular point in "doing" the place and that even if history had never been written about it one would still find sufficient stimulus in the mere loveliness of old structures such as these.

Not to be forgotten are the towns and villas of the country around Verona and, further north and east, the more famous lake region. In the ancient city of Verona, bridging a terrifically swift river that rushes down from the Alps, is almost anything one wishes to find. By carefully avoiding the hordes of central European tourists one can very pleasantly, and more or less profitably, explore with pencil and pad the intricate maze of mediæval streets. Due to certain ineradicable reasons, in particular the river and also the bulky Roman amphitheatre, all the streets apparently must needs twist. There is always a pleasant element of surprise in the discovery, after an almost endless thread of tortuous passageways, in coming upon a soaring architectural piece like the Arco Scaglieri with the vista of piazza and arched streetway that opens out beyond.

It would be rather hopeless for one to attempt to express oneself as a draftsman concerning the lake country. The ineffable blue of the water at Stresa is almost by way of being an anticlimax, in spite of which the many quaint traits among the small houses suffice to charm and intrigue one into making sketches. Such is the Isle des Pécheurs on Lake Maggiore, and which is near the Isola Bella.

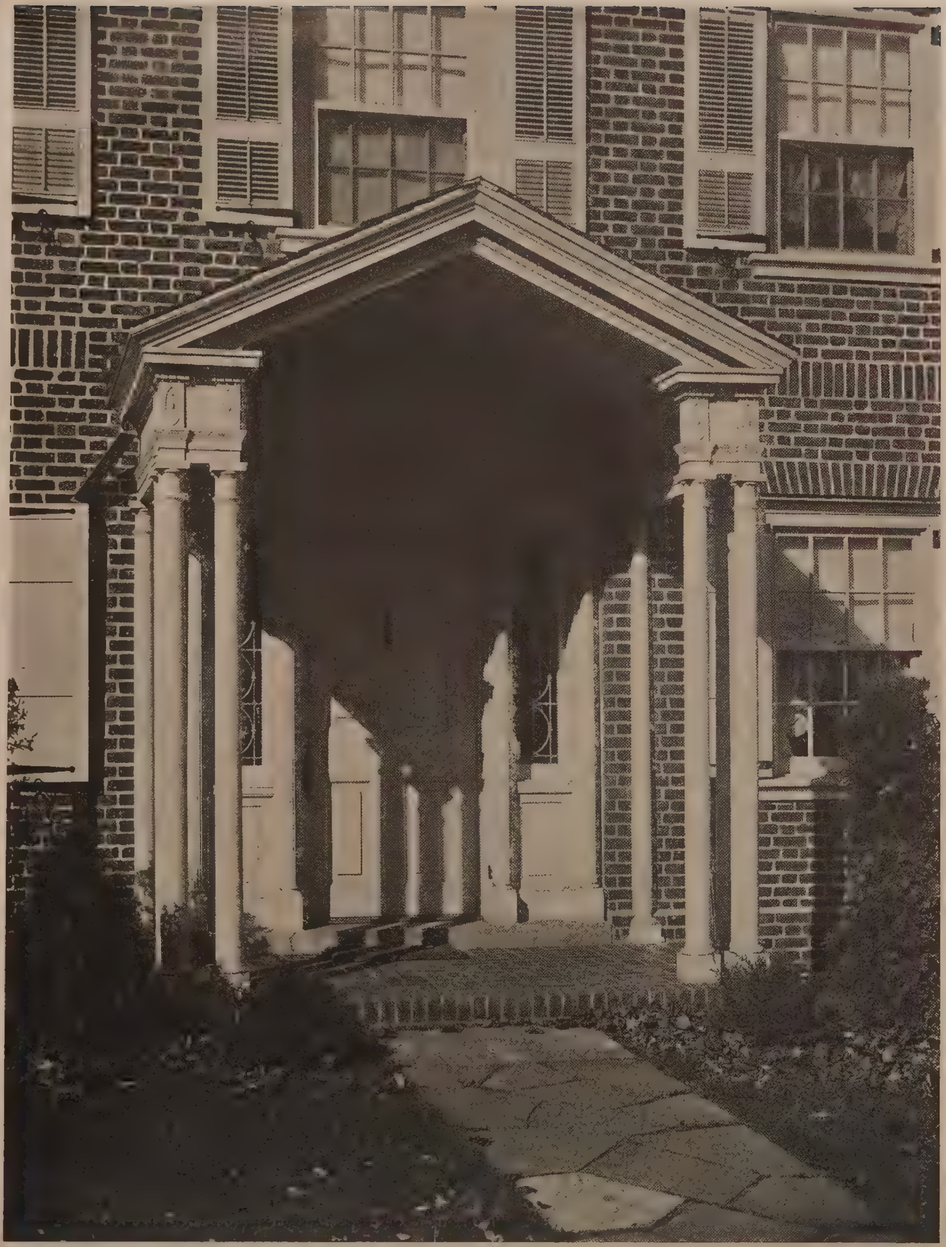
There is about these places in northern Italy a certain warm earthiness of tone quality that is most difficult to describe. Perhaps it is partly due to the abundant use of brick; possibly the quality of the sunlight has something to do with it. Whatever it is that produces the effect, it is certain that after one has wandered among and come to love these little towns there is a noticeable discrepancy in the pale monumental grays of Paris and the north.

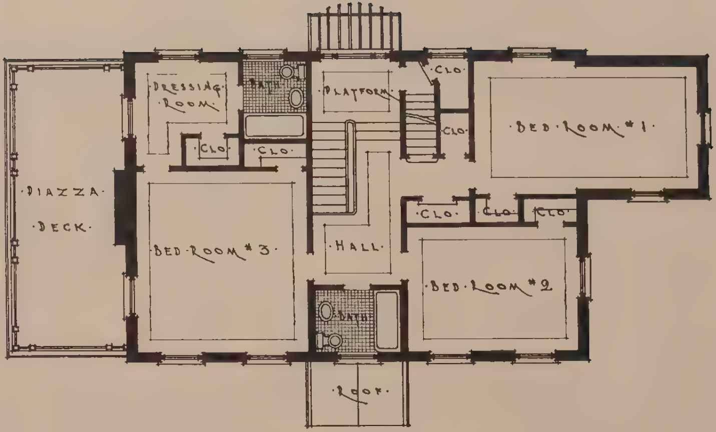
Verona, Arco Scaglieri.



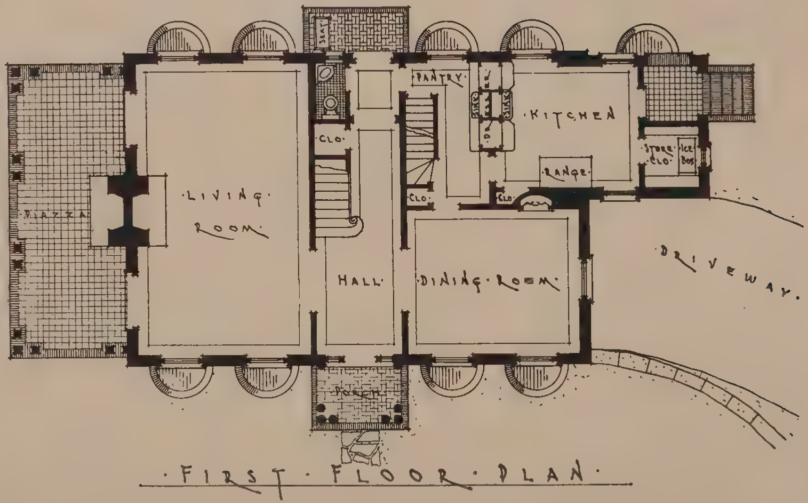
RESIDENCE, GEORGE A. HUGHES, PELHAM MANOR, N. Y.

Wm. Whitehill, Architect.





SECOND FLOOR PLAN



FIRST FLOOR PLAN

RESIDENCE, GEORGE A. HUGHES, PELHAM MANOR, N. Y.

Wm. Whitehill, Architect.

Book Reviews

"THE AMERICAN SPIRIT IN ARCHITECTURE."
The Yale University Press, New Haven, Conn.

For more than five years the Yale University Press has been collecting illustrative material for a series of books on the "Pageant of America." The volumes already published have revealed a mine of exceptional information and a graphic story of the greatest value. After all, there is nothing like seeing life as shown in pictures, to fix it upon the memory and to make real the stories of the beginnings of our great country.

With over ten thousand authenticated pictures as a basis, publication was begun of "The Pageant of America, in fifteen volumes, each with approximately six hundred and fifty illustrations and sixty thousand words of text. Each volume begins with an essay or outline by the editor in which the historical development to be pictured is swiftly and graphically described. Following this, each chapter deals with a group of pictures in sequence, with short introductions which tie together the pictures in the presentation of the main topic. A running narrative is carried by short captions under the pictures. Each caption is vivid and concise, and is written with the utmost regard for literary style as well as historical accuracy, by scholars in their respective fields.

The pictures in each chapter follow one another in natural and logical sequence. The continuity of pictures thus tied together by their captions moves forward smoothly.

A thorough knowledge of all important collections was of supreme importance in order to accomplish the work successfully. In addition, thousands of books were consulted and a working library of special volumes was kept at hand. Correspondence was conducted with a vast number of historical societies and other sources of material both here and in nine foreign countries. Visits were made by members of the staff to collections in every section of the United States, as well as to others in France, England, Spain, Portugal, and elsewhere abroad.

Material was found in great abundance in our own country. The sources include private collections, and those of the government, historical societies, State libraries, museums and art galleries, learned societies, and institutes, religious and educational institutions, municipal collections and archives, dealers' collections, etc. Valuable material was also found in early books of travel and exploration and in English magazines of the late eighteenth century. These are some of the various repositories of authentic pictures which have been investigated. The mere mass of material brought to light is staggering. This was carefully appraised with the exacting scrutiny of precise scholarship. Even the rejected material was not without its peculiar interest. One is struck by the realization of how powerful pictures have been—even erroneous pictures—in shaping American opinion in the past.

We are concerned here especially with volume XIII, "The Spirit of American Architecture." By Talbot Faulkner Hamlin, author of that delightful book, "The Enjoyment of Architecture," and an architect of exceptional taste and knowledge.

There is a general introduction to the volume by Professor Ralph H. Gabriel, editor-in-chief of the series, that gives a comprehensive and enlightening survey of the development of American architecture and the significant social and historical events that have influenced its growth.

But it is to Mr. Hamlin that we turn for the detailed story of the beginnings and development of our architectural history.

We can better convey an idea of the wide scope of the book by giving the chapter headings than by any other method.

He begins with "Early European Backgrounds," and goes on to "The Far South and Southwest," "Early Colonial in the North," "Early Colonial in the South," "Later Colonial in the North," "Later Colonial in the Central Colonies," "Later Colonial in the South," "Architecture in the North," "Late Colonial," "Roman Influence in the South," "The Greek Revival," "Gothic Influence," "Pioneering and the Great Expansion," "Civil War Stagnation—the Victorian Era," "Beginnings of the American Renaissance, 1880–1900," "Modern American Architecture," "Banks and Business Buildings," "Public Buildings," "Memorials, Monuments, and Expositions," "Educational Buildings," "Factories and Industrial Buildings," "Domestic Architecture," "Clubs, Apartments, and Hotels," "Theatres," "The Church," "The Future of American Architecture."

Mr. Hamlin's chapters are written from wide knowledge, not only of his particular topic, but as well with a very exceptional equipment in the way of a sound understanding and sympathy with the underlying human aspects of the history of the beginnings and growth of our institutions and social fabric.

He emphasizes the part that books on architecture imported from the mother country had upon the taste of the early builders, and points out the fact that when Franklin and his friends founded a subscription library in Philadelphia in 1731, it included a number of books on architecture.

Following the admirable prefaces to each period come the remarkably comprehensive series of illustrations, each of which has its carefully written caption pointing out particular and significant architectural features.

Mr. Hamlin's style is that of a writer who thoroughly knows his subject, and it is permeated with observations that illuminate and vivify the text. It is not merely informative but reflective to the point of sound philosophy, and conveys with rare clarity and truth "The American Spirit in Architecture."

Of the future he says: "The most hopeful tendency in American architecture to-day, whose further development will produce its greatest triumphs, is a growing sense of form. This, after all, is the dominant thing in all great architecture."

In both text and illustrations this is the most complete and thorough showing of American architecture we have ever had. It is a book for the architect's reference library and a book of the greatest value for the student and amateur.

MASTERS OF ARCHITECTURE—ANGE-JACQUES GABRIEL. By H. Bartle Cox. 4to. Illustrated. Charles Scribner's Sons, New York. Gabriel, born in the reign of Louis XIV, dying during the reign of Louis XVI, was the *Premier Architecte* to Louis XV. He was the "boudoir" architect of a famous period in French art.

His chief fame will always rest with that exquisite example of boudoir architecture, Le Petit Trianon, built as a hermitage for the king's favorite, the famous Comtesse du Barry. It has been the model for country residences all over the world. The illustrations include plates of this and of the Pavillion Français at Versailles, L'Ecole Militaire, Palace of Compiègne.

HOW TO READ PLANS AND TAKE OFF BILLS OF MATERIAL. By William A. Radford. The Radford Architectural Co., Chicago.

A practical treatise illustrating and explaining the value—to the retail lumberman, the contractor, and mechanic—of being able to read a set of plans intelligently and helping them to an understanding of the character of the work to be done and the quantities of materials required. Illustrated with diagrams and detailed drawings.

OLD ARCHITECTURE OF SOUTHERN MEXICO. By Garrett Van Pelt, Jr., A. I. A. J. H. Jansen, Cleveland, Ohio.

That the architecture of Mexico has grown in interest has been made evident in Mr. Bossom's fine volume, published last year, and in the very obvious inspiration of Mexican details in much of the newer architecture of Florida and the Southwest. There is an element of the picturesque quite out of the ordinary, and with modifications some of the Mexican work is charming. The tendency is to overemphasis of details, the loading on of ornament about doors and windows. Mr. Van Pelt has included many admirable details, and avoided, as a rule, the impossible things.

Professor Crane's Valuable Series of Illustrated Articles on Structural Problems

PROFESSOR THEODORE CRANE, of the Yale School of Architecture, begins in this number his series of articles on the practical details of building construction. They will run through several numbers, and we believe every one of our readers and many others will be interested in following them, and putting them aside for reference. The series will include, besides the general introduction in this number on "Types and Choice of Construction," articles on:

"The Choice of Wall Construction."
"Methods of Waterproofing Basements."
"Building Codes and Structural Standards."

Announcements

The Philadelphia office of Herbert L. Cain will occupy larger offices at 1718 Cherry Street (at the Parkway) after July 1, 1926. Albert N. Dobbins, registered architect, in charge.

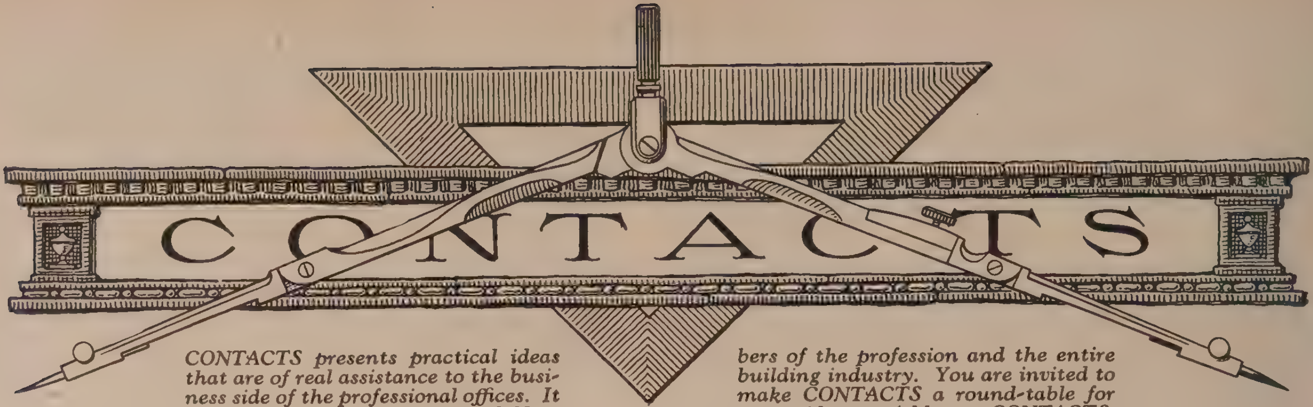
Ellerbe & Company, 692 Endicott Building, St. Paul, Minn., have opened an office in Rochester, Minn., and would like to receive manufacturers' catalogues.

G. L. Lockhart, architect, announces removal of his offices from 1464 East 55th Street, Chicago and Granite City, Ills., to 822 East Capitol Avenue, Springfield, Ills.

Albert Hart Hopkins announces the removal of his offices from 451 Main Street to 1 Niagara Square.

Bernard Raymond, 30 East 42d Street, New York City, is desirous of receiving catalogues and business literature from manufacturers, as he is revising his catalogue file.

Herbert Erickson, architect and engineer, is now located in new offices at 22 West Fifth Avenue, Gary, Ind.



CONTACTS presents practical ideas that are of real assistance to the business side of the professional offices. It is also the purpose of CONTACTS to bring about a better understanding and co-operation between the members of the profession and the entire building industry. You are invited to make CONTACTS a round-table for your ideas. Address CONTACTS, ARCHITECTURE, 597 Fifth Avenue, New York.

The Young Architect: What Will He Become?

Is the Profession Overcrowded?—The Three Facts the Young Architect Should Consider—What Is His Remuneration?—In Business for Himself or Somebody Else?—His Selection of Schools—The Place of the Dilettante in Architecture

By Harvey Wiley Corbett, F. A. I. A., F. R. I. B. A.

SHALL I become an architect? What qualifications should I possess to successfully apply myself in the profession? What remuneration may I expect? And what barriers will present themselves?

These are questions that confront the young man who contemplates beginning his studies in architecture, or the young architect who has just started out in his own or somebody else's office.

We must remember that a successful architect possesses a dual character; he is both an artist and a business man. No matter how keen a sense of beauty he may have, it will be of little use to him if he cannot cope with the mechanical details of the profession and its commercial aspects, unless perhaps the young man may be shrewd enough to associate himself with some one who possesses the qualities he lacks.

The outlook to the young architect should be fascinating; an absorbing and delightful lifework presents itself with buildings arising as lasting monuments to ideals and ambition. But the young man should not throw himself headlong into the profession unless he possesses the artistic temperament that is not sorely tried by the mechanical and business routine and the technical details.

The Creative Fervor and Saintly Practice

What inherent characteristics the budding architect should possess might be summed up in the rare combination of creative fervor along with a saintly practice. We do not pick an author from men who have no insight or imagination, nor do we pick a singer from one who has neither voice nor ear. We do not advise a man who has no love for humanity to become a doctor, and we cannot advise the novitiate to enter into the architect's profession unless he has an enthusiastic sense of beauty and a feeling for mass and proportion in stone.

A lifework should be one that makes us happy and only individual self-analysis can determine for a young man or a young woman, whether or not the architect's duties are fitted to their temperament and their ambitions.

The young architect should certainly possess a love of beauty, and love of beauty is inherent. The culture of beauty may be acquired, but it remains for some to be born with the talent or in rare instances the genius of beauty. The young person should be able to retain, in "his mind's eye," the settings that pass by him every day, and so draw a clear mental picture. He may never have drawn a line on paper, but his mind should be able to retain the picture so that he has it at a minute's notice.

The Three Facts to Consider

When the young man or woman thinks of architecture as a vocation three facts should be considered: First, capacity; second, the barriers that arise; and, third, the field that exists in this country for the practice of architecture.

The capacity of genius is found in rare instances, as I have brought out before. Sometimes a man dreams in terms of stone from his childhood, and possesses those qualities which will make his name ring down the ages as a master-builder. Nothing short of death stops him in his ambition and obstacles cease to be hindrances.

But these fellows are very few and are born once in a decade. The better-than-average serious student will quite often find that he succeeds more readily than his friend with the brilliant flashes of mentality, for he is less discouraged by complicated engineering problems. He accepts mathematics and engineering problems as a necessity, and trains himself to master them. He is willing to work for years in an office at a moderate salary, and to give his ideas to the firm. In other words, he has perseverance and as his experience grows, his knowledge grows, and eventually his will be an outstanding name in the profession.

The Selection of Schools

One of the barriers that arise along the royal road to architecture is the intensive training necessary to the young architect. There is much bad architecture in America at present, largely due to the fact of too few adequately equipped architects. But the average excellence of our

(CONTACTS—*Continued*)

architecture is high, and America has originated and developed the only strictly new form in modern architecture—the skyscraper.

Architecture makes heavy educational demands upon its votaries. The length of time to turn out a capable architect is greater than that to turn out a competent doctor or lawyer. Seven to ten years of schooling, and after that a period of apprenticeship in practical work, are required before an architect is equipped to handle an important building.

Most schools require at least two years of college training before the students enter the architectural school. Fortunately, the system of architectural education is based on the French atelier method, so that the courses in various schools do not differ radically. After this three to five years' study abroad are invaluable. If the student succeeds in passing the entrance examinations for the Beaux-Arts in Paris, he must remain four or five years in order to receive his diploma.

Mr. Corbett instructing a group of students at Columbia in the art of model making.

One of America's most distinguished architects, the late Bertram Goodhue, boasted that all his education was received in this country. This is an exception, for the majority of men who have attained places of eminence have been Beaux-Arts men. Not that the American schools are not well equipped, but the student in Europe broadens his imagination and his culture by contact with the rich store of European architectural treasures. America's pre-eminence in architecture is less than a quarter of a century old, and until America can boast of a respectable age, she must gain her inspiration from older models. If the student can afford the time and money, a Beaux-Arts training is invaluable. Then he has mastered the grammar as well as the idiom and is not like the French student, who has never been nearer France than Long Island.

In Business for Himself or Somebody Else

No matter how breath-taking the diplomas that the young graduate receives, he will find that the field that exists in the practice of architecture is no easy one to hoe. Most graduates associate themselves with an established concern. Here they must content themselves with details and contribute original ideas that will bear their firm's name. This is the period that usually spells discouragement to many a likely young architect.

If the young man just out of school prefers to set up shop for himself in a small town or suburb he may have the opportunity to do original work immediately, but here again he will find obstacles, one of them being the competition of the small local contractor who labors under the delusion that, as an architect, Sir Christopher Wren was a piker compared to him.

The size of the new office's practice generally varies with the young architect's acquaintanceship and, unless he is a social lion, he will find the jobs coming in only after he has gone out and worked his head off to get them.

Even the large firms come in for lean years, such as occurred during the war, when the architects had to shut up shop and wait until it was over. In times of prosperity, one period of the year may find the office with very little to do and then the jobs come in in swarms and the office is swamped, so that they must be ready to handle the building at short notice.

Is Architecture Short-Handed?

In America to-day architecture is the least crowded of all the professions. For every fifty doctors or lawyers, I do not believe there are more than a couple of architects.

The medical and law schools are crowded to the doors, but the architectural schools, grouped under the Beaux-Arts Institute, have an enrollment of less than two thousand.

Yet I feel safe in saying there has never been a time when architects were more urgently needed. Building is increasing in the United States and its resources have only been tapped. On the other hand, the young architect should not labor under the delusion that because the architectural profession is short-handed it is any easier than the lawyer's or doctor's work.

Is the Study of Architecture for the Dilettante?

There was a time in this country when the study and practice of architecture were only for the dilettante and the wealthy student. After a leisurely and pleasant time in Paris, he returned to live a charming life in this country, working when the inspiration presented itself and carrying on most of his business over the teacup. But this sort of "artist" has gone by the board.

The ever-increasing application of architecture to progress and by token of the fact that it mirrors a country's ideals, have established a new "profession," one that is utilitarian as well as useful, one that combines the ideal of beauty with the practical, one that places the architect as a business man as well as an artist.

The new order gives the architect the opportunity of designing beautiful factories as well as residences. Ours is an era of industrialism, and splendid and original designs are being turned out every day to take the place of the old-time shack that served as a factory. Modern architecture has shifted from detail to mass; the giant silhouette of a fifty-story skyscraper can be treated as artistically as the three-story mansion on Fifth Avenue, erected fifty years ago

(CONTACTS—*Continued*)

The new architecture also makes new demands and the dilettante's charming studio is a wreck of its former leisurely self. Weaklings and incompetents have been cleared out, and in their place is the modern office with business methods, and to the front comes the youth with tough fibre.

What Is the Architect's Remuneration?

The monetary rewards in architecture are not great at the start. A Beaux-Arts graduate who enters a firm as a draftsman gets from thirty to fifty dollars a week, and even an expert draftsman rarely gets over one hundred.

The young architect may increase his income by designing buildings at night, and if he stays with a firm long enough he may become one of its members and share in its profits.

If he goes into business himself he takes the same chances as any other business man, his success being due to his own push. An architect's commission on a job usually varies from 6 to 10 per cent of the total cost of construction. Small jobs which take longer to design usually bring a 10 per cent commission, a skyscraper will bring 6 to 7. So, the architect makes $1,200 to $12,000 out of a residence, whereas the million-dollar office-building will bring him in $60,000 to $70,000.

The rewards of architecture, like the other arts, are greatly spiritual. There is no greater satisfaction than seeing your ideals embodied in enduring stone. All the routine, all the labor and trouble and heartaches that come to the architect can never rob him of that glorious thrill when he sees the top stone lifted into place and the last scaffold taken down.

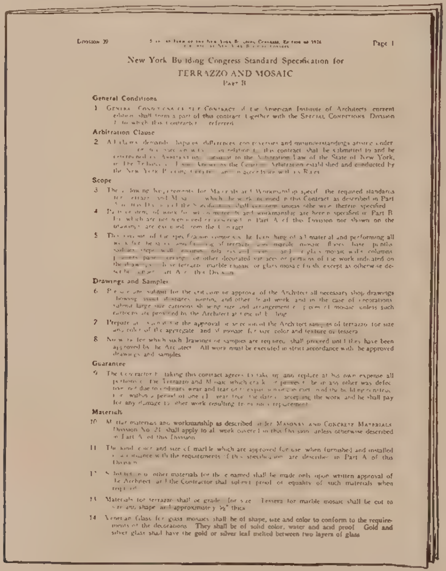
Thus if America hopes to keep up her fine architectural achievements, the aristocracy must break down its barriers and the 400 must grow to the 4000, for the profession urgently needs new talent.

Occasionally an architect wins his reputation almost overnight by being awarded a large government or private corporation's competition. Not long ago a practically unknown young man won a large award in a nationally advertised competition and became famous. And not infrequently these awards are made by an incompetent or biased jury to inferior work.

But these quick flashes are the exceptions to the rule; they cannot take the place of steady, persevering work. Honors will come to the young architect aplenty if he is worth his salt. I may have seemed to have painted a black, or at least a gray, picture for him in this article, but my real intention is far from that. A prayer of thanksgiving and open arms awaits every young architect who has stamina and ambition.

Standard Forms of Specifications

THE New York Building Congress is being of very definite assistance to the architect, specification writer, and in fact the whole office force, by issuing their Standard Forms of Specifications. At the present time these specifications cover Cement Finish, Metal Furring and Lathing, Terrazzo, and Glazing.



Division 39 Page 1

New York Building Congress Standard Specification for

TERRAZZO AND MOSAIC

Part B

The congress has forms on the press for new specifications on Structural Steel, Masonry and Concrete Materials, Masonry Work, Concrete Arches and Fire-proofing, Cut-Stone Work, Architectural Terra-Cotta, Hollow Metal Doors and Trim, and Elevators.

The Standard Forms of specification will be sent to architects who are interested.

"I Sometimes Use the Phrase"

"THE reason I sometimes use the phrase 'or equal' in specifications," Mr. Robert Maurice Trimble, the Pittsburgh architect, explains, "is to get the competition which I may not get when the phrase is omitted. Where the materials of several manufacturers are of equal merit, there is no logical reason for specifying one in preference to the others. In some cases the words, 'or equal,' produce complications, although there is no real reason why this should be the case, for, if the contractor wishes to use a material which he claims is the equal of that specified, he should be allowed to do so if he can prove his contention. The architect should not allow the phrase to be abused by permitting the substitution of material inferior to that specified. In public work, of course, it is illegal to specify the material of one manufacturer only."

Listed below are the amounts placed in different building materials and equipment in the United States from January 1 to May 1, 1926. The estimates include the cost of the material and the cost of putting it into place.

In residential building—based on an average-priced house—

was placed in	
$11,309,400	excavation.
59,060,000	masonry.
66,599,600	stucco, plaster, and tile.
170,897,000	carpentry.
33,928,100	roofing.
4,398,100	flashings, gutters, etc.
58,431,700	plumbing.
43,980,900	heating.
16,964,000	wiring and fixtures.
12,565,900	hardware.
28,273,400	painting and glazing.
5,654,700	screens.
18,848,900	landscaping.
59,060,000	builders' profits.
28,273,400	architects' fees.
10,052,800	financing.

How Craftsmanship in a Building Is Recognized

Stimulating the Building Industry to Better Craftsmanship

COMMITTEE ON RECOGNITION OF CRAFTSMANSHIP

THE Committee on Craftsmanship of the New York Building Congress has three objects:

1. To give recognition to craftsmanship on specific building operations.
2. To stimulate the interest of the industry in true craftsmanship.
3. To convince the public of the value to it of true craftsmanship in building construction.

RECOGNITION OF CRAFTSMANSHIP

The committee aims to recognize by a suitable ceremony and certificate the superior craftsmanship of one of the artisans in each of the major crafts engaged on a given building operation. The committee also recommends that there be erected in the building a bronze tablet bearing the names of the workmen so recognized.

The first step in the procedure must be taken by the architect or builder. He must show to the owner of the building the advantage to him personally as well as to the public of these awards and get him to agree to the plan of award for his building.

R. H. Shreve, of Shreve and Lamb, New York architects, was recently elected President of the New York Building Congress. Other officers elected were: Alexander Kelso, John Lowry, and William O. Ludlow, Vice Presidents; Benjamin D. Traitel, Treasurer; and Richard A. Wolff, Secretary. Mr. Shreve will endeavor to bring about every possible co-operation between architects and the Congress.

The owner's consent having been secured, a Committee of Award for the job is formed, made up of the following members:

1. A representative of the owner.
2. The architect.
3. A representative of labor.
4. A representative of the general and of the subcontractors.
5. A representative of the New York Building Congress, said representative acting as chairman of the Committee of Award for the job in question.

The committee then proceeds with the co-operation of the general contractor, subcontractors, foremen, and workers to select the outstanding man in each craft whose craftsmanship is to be recognized. These selections are made not alone on the basis of quantity and quality of work performed, but for the spirit of co-operation and loyalty shown and pride of the mechanic in his work.

STIMULATING THE INTEREST OF THE INDUSTRY IN CRAFTSMANSHIP

If the revival of craftsmanship is to make headway, the building industry as a whole must get behind it. The industry, therefore, must be kept informed on all efforts to recognize and stimulate craftsmanship.

The first means of informing the industry and of stimulating interest is, naturally, the making of the awards themselves. In addition, it is desirable that at all corner-stone laying announcement be made that the owner will give recognition to the outstanding craftsmen who work on the building. The announcement might very well be made by the architect.

Furthermore, dedication ceremonies, even of private buildings, should be encouraged. It should not be difficult for the architect to persuade a company which has erected a building for its own occupancy to celebrate the completion of the new structure with a suitable ceremony. In this spirit, dedication exercises are called for whenever a great many people move into a new business home. The opening of a new building, also, generally marks a step forward in the history of a corporation that can well be made the text of a dedication ceremony.

At such dedication ceremonies proper place should be provided for the craftsmen whose superior work has been recognized on the building in question.

CARRYING THE CRAFTSMANSHIP IDEA TO THE PUBLIC

The public has a twofold relationship to the craftsmanship movement: first, it is the beneficiary of craftsmanship through the increased quantity of the buildings it secures; second, public appreciation and recognition of good workmanship will further stimulate improvement among building artisans.

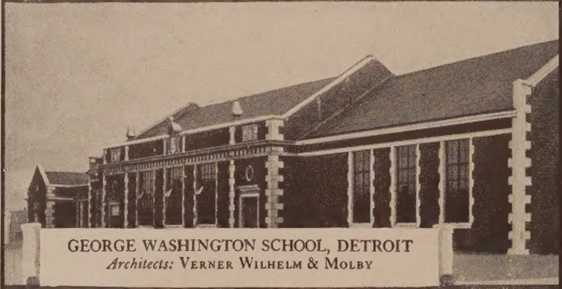
Architects, engineers, contractors, and subcontractors should assist in carrying to the public an appreciation of the value of good craftsmanship by pointing out the economy of good workmanship through the reduction of maintenance costs and slower depreciation.

R. H. Shreve, newly elected President of the Building Congress, pointed out the necessity of the building industry assuring both the training and employing of apprentices in order for craftsmanship to be perfected, and he explained how in both of these activities the Congress is actively engaged.

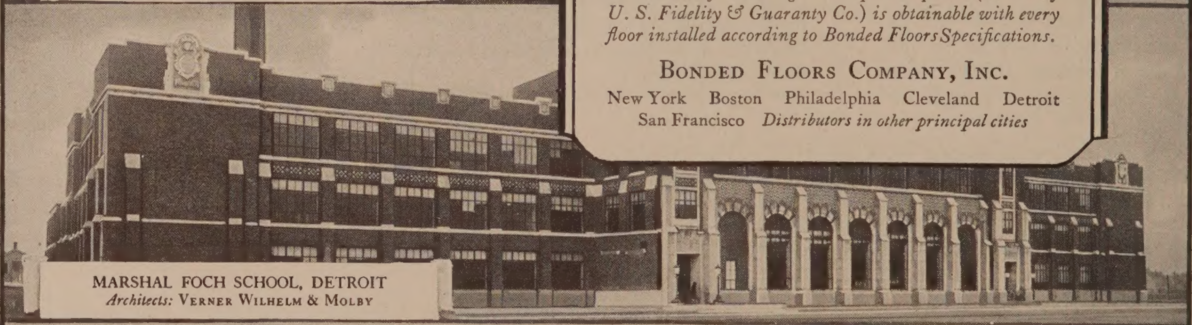
"It is essential," said he, "that we should go far in this proposition because unless all the elements of the industry that make up the Building Congress can get together and stay together and work together on this apprenticeship and craftsmanship work, we shall not do very much in any phase of co-operation in the building industry in which we are interested. It is not any anticipation of the lack of getting together that leads me to make this remark, but the work has naturally not yet been brought to its highest type of organization or its greatest possibilities."

ROOSEVELT SCHOOL, DETROIT
Architects: Malcolmson & Higginbotham

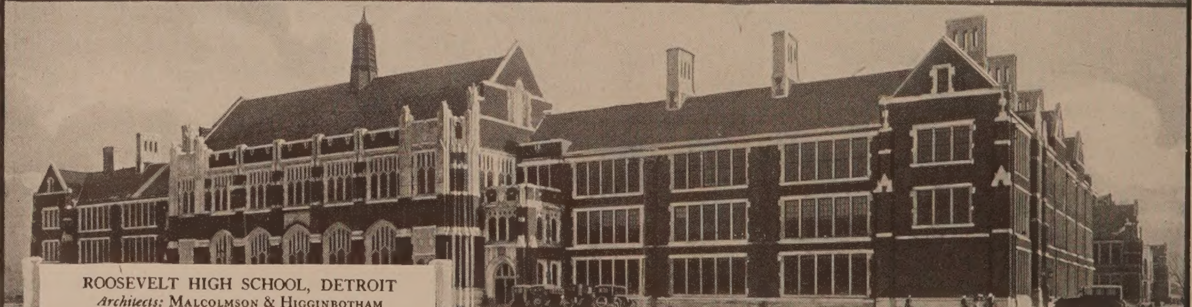
JOHN BURROUGHS SCHOOL, DETROIT
Architects: Malcolmson & Higginbotham



GEORGE WASHINGTON SCHOOL, DETROIT
Architects: Verner Wilhelm & Molby



MARSHAL FOCH SCHOOL, DETROIT
Architects: Verner Wilhelm & Molby



ROOSEVELT HIGH SCHOOL, DETROIT
Architects: Malcolmson & Higginbotham

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Evidently, then, Bonded Floors of *Gold Seal* Battleship Linoleum are giving full satisfaction in Detroit's school buildings. The restful quiet and underfoot comfort of this resilient material is exactly what Detroit wants in class rooms and corridors.

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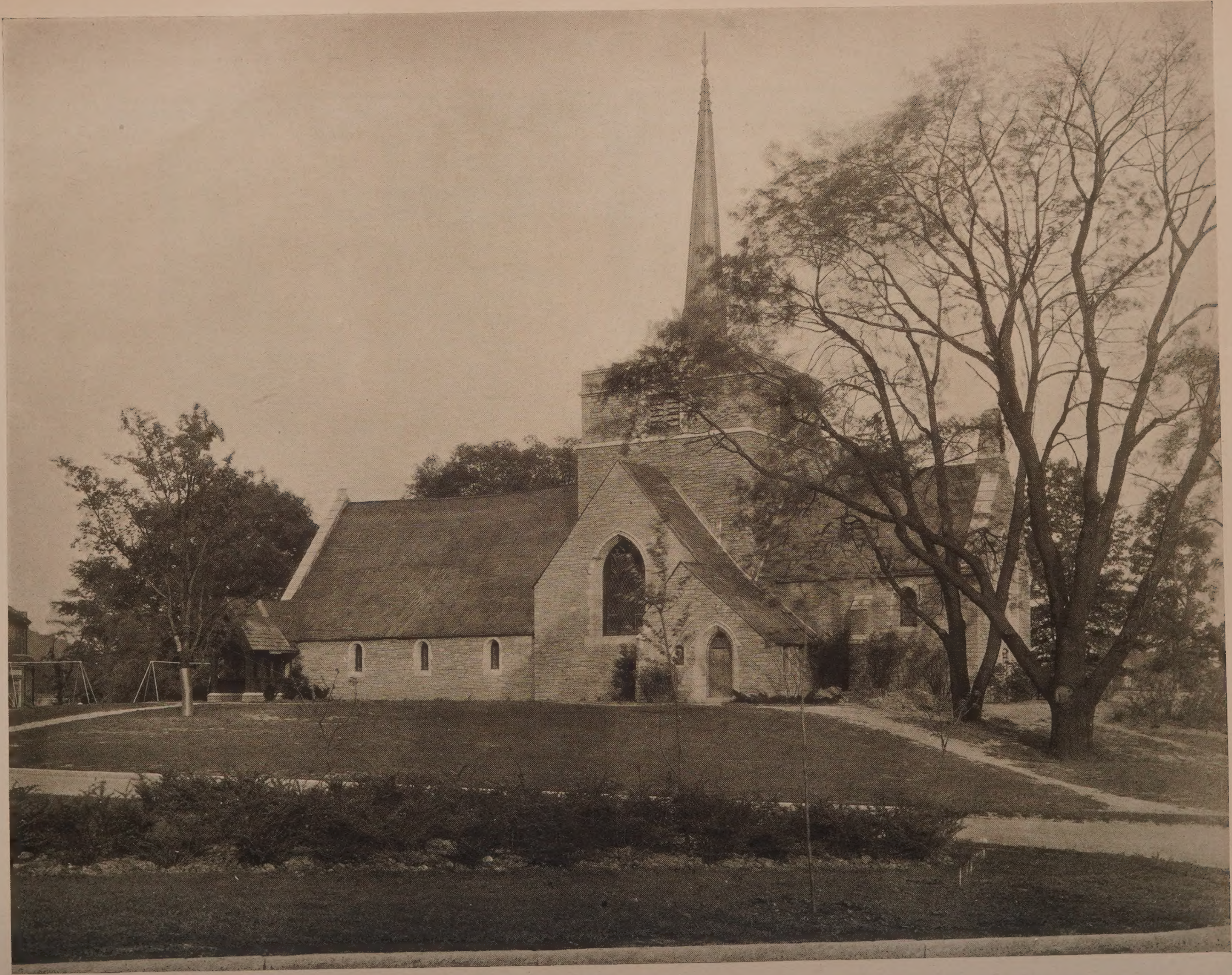

MARIEMONT COMMUNITY CHURCH, MARIEMONT, OHIO.

Louis E. Jallade, Architect.

A little English Norman chapel (in construction). An adaptation of Stoke Poges in the Isle of Man.